









OVERALL COMPUTER COST COMPARISON

	CONFIGURATION 1 BUSINESS THIN CLIENT	CONFIGURATION 2 PERFORMANCE THIN CLIENT	CONFIGURATION 3 BUSINESS ALL-IN-ONE	CONFIGURATION 4 PERFORMANCE ALL-IN-ONE	CONFIGURATION 5 BUSINESS COMPUTER	CONFIGURATION 6 PERFORMANCE COMPUTER	CONFIGURATION 7 BUSINESS WORKSTATION	CONFIGURATION 8 PERFORMANCE WORKSTATION
								
DELL	No Offering	No Offering	OptiPlex 7470 AIO	OptiPlex 7470 AIO	OptiPlex 7070	OptiPlex 7070	Precision 7920	Precision 7920
Sterling Computers MA-IS-2040123	No Offering	No Offering	\$947.99	\$1,259.65	\$634.25	\$846.51	\$2,108.37	\$3,047.94
HP	T640	T740	EliteOne 800 G5 AIO	EliteOne 800 G5 AIO	ProDesk 600 G5	ProDesk 600 G5	Z6 G4	Z6 G4
Golden Star Technology MA-IS-2040124	\$414.70	\$530.00	\$929.00	\$1,194.00	\$634.00	\$830.00	\$1,913.00	\$2,895.00
LENOVO	No Offering	No Offering	ThinkCentre M920Z AIO	ThinkCentre P330 Tiny AIO	ThinkCentre M920T	ThinkCentre M920T	ThinkStation P720	ThinkStation P720
Technology Integration Group MA-IS-2040125	No Offering	No Offering	\$930.86	\$1,195.75	\$680.86	\$830.86	\$1,913.83	\$2,780.75

Updated 02/03/2020

CONFIGURATION 1 BUSINESS THIN CLIENT COMPARISON



**HP
T640
\$414.70**

**Dell
No Offering
No Offering**

**Lenovo
No Offering
No Offering**

Features	Base Specifications	Product Details	Product Details	Product Details
Model /Chassis Type	Brick	Brick		
Display Size				
Processor	AMD®/Intel® Dual Core 1.5GHz	AMD® R1505G Dual Core 2.4GHz		
BIOS Configuration	Boot to Flash	Boot to Flash		
Operating System	Thin Client OS	HP ThinPro OS		
RAM	8GB DDR3 non-ECC	8GB DDR4 non-ECC		
Hard Disk	32GB Flash	32GB Flash		
Removable Storage				
Video Graphics	HD Graphics	AMD® Radeon™ Vega 3 (Dual Monitor Capable @ 1920x1200 each)		
Web Camera				
Sound	High Definition	High Definition Audio (Full Duplex)		
Network Interface	Gigabit LAN 10/100/1000	Realtek RTL8111HSH 10/100/1000		
VDI Protocols	PCoIP, RDP, HDX, RemoteX	PCoIP, RDP, HDX, Remote FX, Blast		
Security				
EnergyStar Level	4	7.1		
ePEAT Level	Bronze	Silver		
Mouse	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll		
Keyboard	Standard Keyboard	Standard Keyboard		
Warranty	3 Year Depot Service	3 Year Depot Service		
RAM Maximum		32GB		
DIMM Slots		2		
PCI Slots Total				
Media Card Slots				
USB Ports - Front (2.0 / 3.0 / C)		(2) 3.1 / (1) C		
USB Ports - Rear (2.0 / 3.0 / C)		(2) 2.0 / (2) 3.1		
Serial Port (9pin, 16550)				
Maximum Support Video Resolution		3840 x 2160		
VGA Out				
DVI Out				
HDMI Out				
DisplayPort Out		3		
Stereo line-in Connection				
Microphone-in Connection		1		
Speakers/line-out Connection		1		
Active/Operating (Watts)		9.35		
Power Save/Sleep Mode (Watts)		1.87		
Acoustics (max. dB)		2.5		
Dimensions (inches W x D x H)		1.37 x 7.71 x 7.71		
Weight (.lbs.)		2.2		
Chassis Lock & Cable Loop		Yes		
UPGRADE OPTIONS (to be ordered at initial purchase)				
Chassis	Desktop			
Chassis	Small Form Factor (SFF)			
Chassis	Ultra Small Form Factor (USFF)			
Operating System	Windows 10IoT	Windows 10 IoT Ent. LTSC 2019		
RAM	16GB non-ECC	16GB non-ECC		
RAM	32GB non-ECC	32GB non-ECC		
RAM	64GB non-ECC			
RAM	32GB ECC			
RAM	64GB ECC			
RAM	128GB ECC			
RAM	256GB ECC			
Flash Drive	64GB	64GB		
Flash Drive	128GB	128GB		
Flash Drive	256GB	256GB		
Flash Drive	512GB	512GB		
Hard Drive	1TB SATA 6.0Gb/s non-OPAL			
Hard Drive	2TB SATA 6.0Gb/s non-OPAL			
Solid State Drive	128GB PCIe non-OPAL			
Solid State Drive	256GB SATA non-OPAL			
Solid State Drive	256GB PCIe non-OPAL			
Solid State Drive	512GB SATA non-OPAL			
Solid State Drive	512GB PCIe non-OPAL			
Solid State Drive	1TB SATA non-OPAL			
Solid State Drive	1TB PCIe non-OPAL			
Solid State Drive	2TB SATA non-OPAL			
Solid State Drive	2TB PCIe non-OPAL			
Removable Storage	8x DVD+/-RW			
Graphics	AMD® or nVidia® w/2GB Discrete			
Graphics	AMD® or nVidia® w/4GB Discrete			
Graphics	AMD® or nVidia® w/6GB Discrete			
Graphics	AMD® or nVidia® w/8GB Discrete			
Webcam	IR			
Wireless Interface	802.11 a/b/g/n/AC	Intel® 9260 AC w/Bluetooth		
Bluetooth Interface	4			
Security	4 Yr. Absolute DDS Premium			
Security	5 Yr. Absolute DDS Premium			
Security	6 Yr. Absolute DDS Premium			
Warranty	1 Additional Year	1 Additional Yr. Depot Service		
Warranty	2 Additional Years	2 Additional Yrs. Depot Service		
Warranty	3 Additional Years			
ACCESSORY OPTIONS (ordered at initial purchase or at a later time)				
Video Dongle Adapter	DisplayPort to Dual DisplayPort			
Video Dongle Adapter	DisplayPort to DVI	DisplayPort to DVI		
Video Dongle Adapter	DisplayPort to HDMI	DisplayPort to HDMI		
Video Dongle Adapter	DisplayPort to VGA	DisplayPort to VGA		
Video Dongle Adapter	HDMI to VGA			
Video Dongle Adapter	HDMI to DisplayPort			
Video Dongle Adapter	MiniDisplayPort to DisplayPort			
Removable Storage	USB 8x DVD+/-RW			
Lock Kit	Lock Kit	Keyed Cable Lock		
Mounting Bracket	Mounting Bracket	Quick Release Bracket		
Mounting Bracket	Mounting Bracket			

CONFIGURATION 2 PERFORMANCE THIN CLIENT COMPARISON



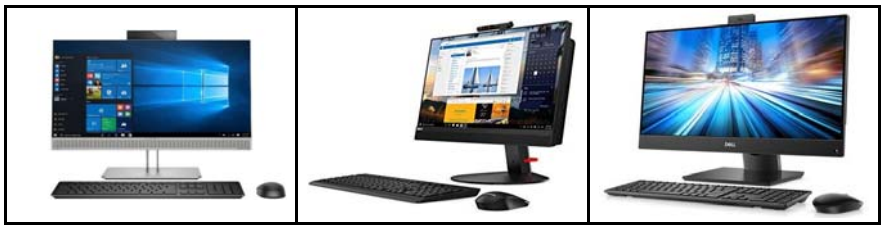
HP
T740
\$530.00

Dell
No Offering
No Offering

Lenovo
No Offering
No Offering

Features	Base Specifications	Product Details	Product Details	Product Details
Model /Chassis Type	Brick	Brick		
Display Size				
Processor	AMD®/Intel® Quad Core 2.0GHz	AMD® V1756B Quad Core 3.25GHz		
BIOS Configuration	Boot to Flash	Boot to Flash		
Operating System	Thin Client OS	HP ThinPro OS		
RAM	16GB DDR3 non-ECC	16GB DDR4 non-ECC		
Hard Disk	64GB Flash	64GB Flash		
Removable Storage				
Video Graphics	HD Graphics	AMD® Radeon™ Vega 8 (Dual Monitor Capable @ 1920x1200 each)		
Web Camera				
Sound	High Definition	High Definition Audio (Full Duplex)		
Network Interface	Gigabit LAN 10/100/1000	Gigabit LAN 10/100/1000		
VDI Protocols	PCoIP, RDP, HDX, RemoteX	PCoIP, RDP, HDX, Remote FX, Blast		
Security				
EnergyStar Level	4	7.1		
ePEAT Level	Bronze	Silver		
Mouse	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll		
Keyboard	Standard Keyboard	Standard Keyboard		
Warranty	3 Year Depot Service	3 Year Depot Service		
RAM Maximum		32GB		
DIMM Slots		2		
PCI Slots Total		1		
Media Card Slots				
USB Ports - Front (2.0 / 3.0 / C)		(2) 3.1 / (1) C		
USB Ports - Rear (2.0 / 3.0 / C)		(2) 2.0 / (2) 3.1		
Serial Port (9pin, 16550)				
Maximum Support Video Resolution		3840 x 2160		
VGA Out				
DVI Out				
HDMI Out				
DisplayPort Out		4		
Stereo line-in Connection				
Microphone-in Connection		1		
Speakers/line-out Connection		1		
Active/Operating (Watts)		16.57		
Power Save/Sleep Mode (Watts)		1.47		
Acoustics (max. dB)		2.7		
Dimensions (inches W x D x H)		1.96 x 8.26 x 8.26		
Weight (.lbs.)		2.92		
Chassis Lock & Cable Loop		Yes		
UPGRADE OPTIONS (to be ordered at initial purchase)				
Chassis	Desktop			
Chassis	Small Form Factor (SFF)			
Chassis	Ultra Small Form Factor (USFF)			
Operating System	Windows 10IoT	Windows 10 IoT Ent. LTSC 2019		
RAM	16GB non-ECC			
RAM	32GB non-ECC	32GB non-ECC		
RAM	64GB non-ECC			
RAM	32GB ECC			
RAM	64GB ECC			
RAM	128GB ECC			
RAM	256GB ECC			
Flash Drive	64GB			
Flash Drive	128GB	128GB		
Flash Drive	256GB	256GB		
Flash Drive	512GB	512GB		
Hard Drive	1TB SATA 6.0Gb/s non-OPAL			
Hard Drive	2TB SATA 6.0Gb/s non-OPAL			
Solid State Drive	128GB PCIe non-OPAL			
Solid State Drive	256GB SATA non-OPAL			
Solid State Drive	256GB PCIe non-OPAL			
Solid State Drive	512GB SATA non-OPAL			
Solid State Drive	512GB PCIe non-OPAL			
Solid State Drive	1TB SATA non-OPAL			
Solid State Drive	1TB PCIe non-OPAL			
Solid State Drive	2TB SATA non-OPAL			
Solid State Drive	2TB PCIe non-OPAL			
Removable Storage	8x DVD+-RW			
Graphics	AMD® or nVidia® w/2GB Discrete	AMD® Radeon™ E9173		
Graphics	AMD® or nVidia® w/4GB Discrete			
Graphics	AMD® or nVidia® w/6GB Discrete			
Graphics	AMD® or nVidia® w/8GB Discrete			
Webcam	IR			
Wireless Interface	802.11 a/b/g/n/AC	Intel® 9260 AC w/Bluetooth		
Bluetooth Interface	4			
Security	4 Yr. Absolute DDS Premium			
Security	5 Yr. Absolute DDS Premium			
Security	6 Yr. Absolute DDS Premium			
Warranty	1 Additional Year	1 Additional Yr. Depot Service		
Warranty	2 Additional Years	2 Additional Yrs. Depot Service		
Warranty	3 Additional Years			
ACCESSORY OPTIONS (ordered at initial purchase or at a later time)				
Video Dongle Adapter	DisplayPort to Dual DisplayPort			
Video Dongle Adapter	DisplayPort to DVI	DisplayPort to DVI		
Video Dongle Adapter	DisplayPort to HDMI	DisplayPort to HDMI		
Video Dongle Adapter	DisplayPort to VGA	DisplayPort to VGA		
Video Dongle Adapter	HDMI to VGA			
Video Dongle Adapter	HDMI to DisplayPort			
Video Dongle Adapter	MiniDisplayPort to DisplayPort			
Removable Storage	USB 8x DVD+-RW			
Lock Kit	Lock Kit	Keyed Cable Lock		
Mounting Bracket	Mounting Bracket	Quick Release Bracket		
Mounting Bracket	Mounting Bracket			

CONFIGURATION 3 BUSINESS ALL-IN-ONE COMPARISON



HP EliteOne 800 G5 AIO \$929.00 **Lenovo ThinkCentre M920Z AIO \$930.86** **Dell OptiPlex 7470 AIO \$947.99**

Features	Base Specifications	Product Details	Product Details	Product Details
Model /Chassis Type	Integrated w/Monitor	Integrated w/Monitor	Integrated w/Monitor	Integrated w/Monitor
Display Size	23 Inch Touchscreen	23.8 Inch FHD Touchscreen	23.8 Inch Touchscreen	23.8 Inch Touchscreen
Processor	Intel® Core™ i5 9700 3.10GHz, 9M, 6 Core, 6 Thread	Intel® Core™ i5 9600 3.10GHz, 9M, 6 Core, 6 Thread	Intel® Core™ i5 9600 3.10GHz, 9M, 6 Core, 6 Thread	Intel® Core™ i5 9600 3.10GHz, 9M, 6 Core, 6 Thread
BIOS Configuration	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive
Operating System	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS
RAM	8GB DDR4 non-ECC	8GB DDR4 non-ECC	8GB DDR4 non-ECC	8GB DDR4 non-ECC
Hard Disk	128GB SSD SATA non-OPAL	128GB PCIe non-OPAL	128GB SSD SATA non-OPAL	128GB SSD SATA non-OPAL
Removable Storage				
Video Graphics	Intel® HD Graphics	Intel® HD Graphics 630	Intel® HD Graphics 630	Intel® HD Graphics
Web Camera	Front	Front	Front	Front
Sound	High Definition Audio	Bang & Olufsen HD Audio	High Definition Audio	High Definition Audio
Network Interface	Intel® Gigabit LAN 10/100/1000	Intel® I219-LM Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000
VDI Protocols				
Security	Intel® vPro™	Intel® vPro™	Intel® vPro™	Intel® vPro™
EnergyStar Level	4	4	7	7
ePEAT Level	Bronze	Gold	Gold	Bronze
Mouse	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll
Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard
Warranty	4 Year NBD Onsite Service (Keep Your Hard Drive)	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive
RAM Maximum		32GB	32GB	32GB
DIMM Slots		2	2	2
PCI Slots Total				
Media Card Slots			1	1
USB Ports - Front (2.0 / 3.0 / C)		(1) 3.0 / (1) C	(2) 3.1 / (1) C	(1) 3.1 / (1) C
USB Ports - Rear (2.0 / 3.0 / C)		(2) 3.1	(4) 3.1	(4) 3.1
Serial Port (9pin, 16550)			1	
Maximum Support Video Resolution		1920 x 1080	4096 x 2304	1920 x 1080
VGA Out				
DVI Out				
HDMI Out		1		2
DisplayPort Out		1	1	1
Stereo line-in Connection		1	1	
Microphone-in Connection		1	1	Integrated
Speakers/line-out Connection		1		1
Active/Operating (Watts)		TBD	150	240
Power Save/Sleep Mode (Watts)		0.78	19 / 32	2
Acoustics (max. dB)		15	26	39
Dimensions (inches W x D x H)		21.2 x 7.5 x 16.5	21.3 x 1.8 x 13.7	21.26x 2.06 x 13.54
Weight (.lbs.)		18.25	14	13.31
Chassis Lock & Cable Loop		Yes	Yes	Yes
UPGRADE OPTIONS (to be ordered at initial purchase)				
Chassis	Desktop			
Chassis	Small Form Factor (SFF)			
Chassis	Ultra Small Form Factor (USFF)			
Operating System	Windows 10IoT			
RAM	16GB non-ECC	16GB non-ECC	16GB non-ECC	16GB non-ECC
RAM	32GB non-ECC	32GB non-ECC	32GB non-ECC	32GB non-ECC
RAM	64GB non-ECC	64GB non-ECC		
RAM	32GB ECC			
RAM	64GB ECC			
RAM	128GB ECC			
RAM	256GB ECC			
Flash Drive	64GB			
Flash Drive	128GB			
Flash Drive	256GB			
Flash Drive	512GB			
Hard Drive	1TB SATA 6.0Gb/s non-OPAL		1TB SATA 7200RPM non-OPAL	1TB SATA 6.0Gb/s non-OPAL
Hard Drive	2TB SATA 6.0Gb/s non-OPAL			2TB SATA 6.0Gb/s non-OPAL
Solid State Drive	128GB PCIe non-OPAL		128GB PCIe non-OPAL	
Solid State Drive	256GB SATA non-OPAL	256GB SATA non-OPAL	256GB SATA non-OPAL	
Solid State Drive	256GB PCIe non-OPAL	256GB PCIe non-OPAL	256GB PCIe non-OPAL	256GB PCIe non-OPAL
Solid State Drive	512GB SATA non-OPAL	512GB SATA non-OPAL	512GB SATA non-OPAL	
Solid State Drive	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL
Solid State Drive	1TB SATA non-OPAL	1TB SATA non-OPAL	1TB SATA non-OPAL	
Solid State Drive	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL
Solid State Drive	2TB SATA non-OPAL	2TB SATA non-OPAL		
Solid State Drive	2TB PCIe non-OPAL	2TB PCIe non-OPAL		
Removable Storage	8x DVD+/-RW		8x DVD+/-RW	
Graphics	AMD® or nVidia® w/2GB Discrete			
Graphics	AMD® or nVidia® w/4GB Discrete	AMD® Radeon™ RX560 w/4GB		nVidia® GeForce™ GTX 1050 w/4GB
Graphics	AMD® or nVidia® w/6GB Discrete			
Graphics	AMD® or nVidia® w/8GB Discrete			
Webcam	IR	IR / Dual Webcam		IR
Wireless Interface	802.11 a/b/g/n/AC	Intel® AX200 AC w/Bluetooth 5	Intel® 9560 AC w/Bluetooth 5	802.11 a/b/g/n/AC w/Bluetooth 4
Bluetooth Interface	4			
Security	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium
Security	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium.	5 Yr. Absolute DDS Premium.	5 Yr. Absolute DDS Premium.
Security	6 Yr. Absolute DDS Premium			
Warranty	1 Additional Year	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive
Warranty	2 Additional Years		Additional 2 Yrs. NBD Onsite Service Keep Your Hard Drive	
Warranty	3 Additional Years			
ACCESSORY OPTIONS (ordered at initial purchase or at a later time)				
Video Dongle Adapter	DisplayPort to Dual DisplayPort		DisplayPort to Dual DisplayPort	DisplayPort to Dual DisplayPort
Video Dongle Adapter	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI
Video Dongle Adapter	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI
Video Dongle Adapter	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA
Video Dongle Adapter	HDMI to VGA			HDMI to VGA
Video Dongle Adapter	HDMI to DisplayPort			HDMI to DisplayPort
Video Dongle Adapter	MiniDisplayPort to DisplayPort			MiniDisplayPort to DisplayPort
Removable Storage	USB 8x DVD+/-RW		USB 8x DVD+/-RW	USB 8x DVD+/-RW
Lock Kit	Lock Kit	Keyed Cable Lock	Security Lock	Lock Kit
Mounting Bracket	Mounting Bracket	Quick Release Bracket		
Mounting Bracket	Mounting Bracket	AIO Reclining Stand		

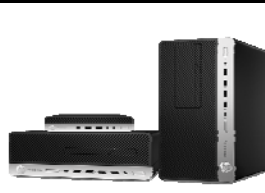
CONFIGURATION 4 PERFORMANCE ALL-IN-ONE COMPARISON



HP EliteOne 800 G5 AIO \$1,194.00 **Lenovo ThinkCentre P330 Tiny AIO \$1,195.75** **Dell OptiPlex 7470 AIO \$1,259.65**

Features	Base Specifications	Product Details	Product Details	Product Details
Model /Chassis Type	Integrated w/Monitor	Integrated w/Monitor	Integrated w/Monitor	Integrated w/Monitor
Display Size	23 Inch Touchscreen	23.8 Inch Touchscreen	23.8 Inch Touchscreen	23.8 Inch Touchscreen
Processor	Intel® Core™ i7 9700 3.00GHz, 12M, 8 Core, 8 Thread	Intel® Core™ i7 9700 3.00GHz, 12M, 8 Core, 8 Thread	Intel® Core™ i7 9700 3.00GHz, 12M, 8 Core, 8 Thread	Intel® Core™ i7 9700 3.00GHz, 12M, 8 Core, 8 Thread
BIOS Configuration	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive
Operating System	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS
RAM	16GB DDR4 non-ECC	16GB DDR4 non-ECC	16GB DDR4 non-ECC	16GB DDR4 non-ECC
Hard Disk	256GB SSD SATA non-OPAL	256GB PCIe non-OPAL	256GB SSD SATA non-OPAL	256GB PCIe non-OPAL
Removable Storage				
Video Graphics	AMD® / nVidia® w/2GB	nVidia® GeForce™ GTX 1050 w/4GB	nVidia® Quadro™ P600 w/2GB	nVidia® GeForce™ GTX 1050 w/4GB
Web Camera	Front	Front	Front	Front
Sound	High Definition Audio	High Definition Audio	High Definition Audio	High Definition Audio
Network Interface	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000
VDI Protocols				
Security	Intel® vPro™	Intel® vPro™	Intel® vPro™	Intel® vPro™
EnergyStar Level	4	7	7	7
ePEAT Level	Bronze	Bronze	Gold	Bronze
Mouse	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll
Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard
Warranty	4 Year NBD Onsite Service (Keep Your Hard Drive)	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive
RAM Maximum		32GB	32GB	32GB
DIMM Slots		2	2	2
PCI Slots Total				
Media Card Slots				1
USB Ports - Front (2.0 / 3.0 / C)		(1) 3.0 / (1) C	(2) 3.1 / (1) C	(1) 3.1 / (1) C
USB Ports - Rear (2.0 / 3.0 / C)		(2) 3.1	(4) 3.1	(4) 3.1
Serial Port (9pin, 16550)				
Maximum Support Video Resolution		1920 x 1080	1920 x 1080	1920 x 1080
VGA Out				
DVI Out				
HDMI Out		1		2
DisplayPort Out		1	1	1
Stereo line-in Connection		1	1	
Microphone-in Connection		1	1	Integrated
Speakers/line-out Connection		1		1
Active/Operating (Watts)		TBD	135	240
Power Save/Sleep Mode (Watts)		0.75	19 / 32	2
Acoustics (max. dB)		15	26	39
Dimensions (inches W x D x H)		21.2 x 7.5 x 16.5	21.25 x 11.11 x 20.06	21.26x 2.06 x 13.54
Weight (.lbs.)		18.25	16	13.31
Chassis Lock & Cable Loop		Yes	Yes	Yes
UPGRADE OPTIONS (to be ordered at initial purchase)				
Chassis	Desktop			
Chassis	Small Form Factor (SFF)			
Chassis	Ultra Small Form Factor (USFF)			
Operating System	Windows 10IoT			
RAM	16GB non-ECC			
RAM	32GB non-ECC	32GB non-ECC	32GB non-ECC	32GB non-ECC
RAM	64GB non-ECC	64GB non-ECC		
RAM	32GB ECC			
RAM	64GB ECC			
RAM	128GB ECC			
RAM	256GB ECC			
Flash Drive	64GB			
Flash Drive	128GB			
Flash Drive	256GB			
Flash Drive	512GB			
Hard Drive	1TB SATA 6.0Gb/s non-OPAL			1TB SATA 6.0Gb/s non-OPAL
Hard Drive	2TB SATA 6.0Gb/s non-OPAL			2TB SATA 6.0Gb/s non-OPAL
Solid State Drive	128GB PCIe non-OPAL			
Solid State Drive	256GB SATA non-OPAL			
Solid State Drive	256GB PCIe non-OPAL	256GB PCIe non-OPAL	256GB PCIe non-OPAL	
Solid State Drive	512GB SATA non-OPAL	512GB SATA non-OPAL	512GB SATA non-OPAL	
Solid State Drive	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL
Solid State Drive	1TB SATA non-OPAL	1TB SATA non-OPAL	1TB SATA non-OPAL	
Solid State Drive	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	
Solid State Drive	2TB SATA non-OPAL	2TB SATA non-OPAL	2TB SATA non-OPAL	1TB PCIe non-OPAL
Solid State Drive	2TB PCIe non-OPAL	2TB PCIe non-OPAL	2TB PCIe non-OPAL	
Removable Storage	8x DVD+-RW			
Graphics	AMD® or nVidia® w/2GB Discrete			
Graphics	AMD® or nVidia® w/4GB Discrete			
Graphics	AMD® or nVidia® w/6GB Discrete			
Graphics	AMD® or nVidia® w/8GB Discrete			
Webcam	IR	IR / Dual Webcam		IR
Wireless Interface	802.11 a/b/g/n/AC	Intel® AX200 AC w/Bluetooth 5	Intel® 9560 AC w/Bluetooth 5	802.11 a/b/g/n/AC w/Bluetooth 4
Bluetooth Interface	4			
Security	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium
Security	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium.	5 Yr. Absolute DDS Premium.	5 Yr. Absolute DDS Premium.
Security	6 Yr. Absolute DDS Premium			
Warranty	1 Additional Year	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive
Warranty	2 Additional Years		Additional 2 Yrs. NBD Onsite Service Keep Your Hard Drive	
Warranty	3 Additional Years			
ACCESSORY OPTIONS (ordered at initial purchase or at a later time)				
Video Dongle Adapter	DisplayPort to Dual DisplayPort		DisplayPort to Dual DisplayPort	DisplayPort to Dual DisplayPort
Video Dongle Adapter	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI
Video Dongle Adapter	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI
Video Dongle Adapter	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA
Video Dongle Adapter	HDMI to VGA			HDMI to VGA
Video Dongle Adapter	HDMI to DisplayPort			HDMI to DisplayPort
Video Dongle Adapter	MiniDisplayPort to DisplayPort			MiniDisplayPort to DisplayPort
Removable Storage	USB 8x DVD+-RW		USB 8x DVD+-RW	USB 8x DVD+-RW
Lock Kit	Lock Kit	Keyed Cable Lock	Security Lock	Lock Kit
Mounting Bracket	Mounting Bracket	Quick Release Bracket		
Mounting Bracket	Mounting Bracket	AIO Reclining Stand		

CONFIGURATION 5 BUSINESS COMPUTER COMPARISON



**HP
ProDesk 600 G5
\$634.00**

**Dell
OptiPlex 7070
\$634.25**

**Lenovo
ThinkCentre M920T
\$680.86**

Features	Base Specifications	Product Details	Product Details	Product Details
Model /Chassis Type	Mini Tower	Mini Tower	Mini Tower	Mini Tower
Display Size				
Processor	Intel® Core™ i5 9600 3.10GHz, 9M, 6 Core, 6 Thread	Intel® Core™ i5 9600 3.10GHz, 9M, 6 Core, 6 Thread	Intel® Core™ i5 9600 3.10GHz, 9M, 6 Core, 6 Thread	Intel® Core™ i5 9600 3.10GHz, 9M, 6 Core, 6 Thread
BIOS Configuration	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive
Operating System	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS
RAM	8GB DDR4 non-ECC	8GB DDR4 non-ECC	8GB DDR4 non-ECC	8GB DDR4 non-ECC
Hard Disk	128GB SSD SATA non-OPAL	128GB SSD SATA non-OPAL	128GB PCIe non-OPAL	128GB SSD non-OPAL
Removable Storage				
Video Graphics	Intel® HD Graphics	Intel® HD Graphics 630	Intel® HD Graphics	Intel® HD Graphics 630
Web Camera				
Sound	High Definition Audio	High Definition Audio	High Definition Audio	High Definition Audio
Network Interface	Intel® Gigabit LAN 10/100/1000	Intel® I219-LM Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000
VDI Protocols				
Security	Intel® vPro™	Intel® vPro™	Intel® vPro™	Intel® vPro™
EnergyStar Level	4	6	7	6
ePEAT Level	Bronze	Gold	Bronze	Gold
Mouse	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll
Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard
Warranty	4 Year NBD Onsite Service (Keep Your Hard Drive)	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive
RAM Maximum	128GB	128GB	64GB	64GB
DIMM Slots	4	4	4	4
PCI Slots Total	2	2	4	3
Media Card Slots				1
USB Ports - Front (2.0 / 3.0 / C)		(2) 2.0 / (2) 3.1 / (1) C	(2) 2.0 / (1) 3.1 / (1) C	(2) 3.1
USB Ports - Rear (2.0 / 3.0 / C)		(2) 2.0 / (4) 3.1	(2) 2.0 / (4) 3.1	(4) 3.1
Serial Port (9pin, 16550)				
Maximum Support Video Resolution		4096 x 2160	4196 x 2160	5130 x 3200
VGA Out				1
DVI Out				
HDMI Out		1		
DisplayPort Out		2	2	1
Stereo line-in Connection		1		1
Microphone-in Connection		1	1	1
Speakers/line-out Connection		1	1	1
Active/Operating (Watts)		13.59	TBD	180
Power Save/Sleep Mode (Watts)		1.32	TBD	19 / 32
Acoustics (max. dB)		29	26.3	26
Dimensions (inches W x D x H)		6.69 x 10.79 x 13.3	6.1 x 10.8 x 13.8	6.5 x 12.65 x 16.15
Weight (.lbs.)		15.77	17.49	15.45
Chassis Lock & Cable Loop		Yes	Yes	Yes
UPGRADE OPTIONS (to be ordered at initial purchase)				
Chassis	Desktop			Desktop
Chassis	Small Form Factor (SFF)	Small Form Factor (SFF)	Small Form Factor (SFF)	Small Form Factor (SFF)
Chassis	Ultra Small Form Factor (USFF)	Ultra Small Form Factor (USFF)	Ultra Small Form Factor (USFF)	Ultra Small Form Factor (USFF)
Operating System	Windows 10IoT			
RAM	16GB non-ECC	16GB non-ECC	16GB non-ECC	16GB non-ECC
RAM	32GB non-ECC	32GB non-ECC	32GB non-ECC	32GB non-ECC
RAM	64GB non-ECC	64GB non-ECC	64GB non-ECC	64GB non-ECC
RAM	32GB ECC			
RAM	64GB ECC			
RAM	128GB ECC			
RAM	256GB ECC			
Flash Drive	64GB			
Flash Drive	128GB			
Flash Drive	256GB			
Flash Drive	512GB			
Hard Drive	1TB SATA 6.0Gb/s non-OPAL	1TB SATA 6.0Gb/s non-OPAL	1TB SATA 6.0Gb/s non-OPAL	1TB SATA 7200RPM non-OPAL
Hard Drive	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 7200RPM non-OPAL
Solid State Drive	128GB PCIe non-OPAL	128GB PCIe non-OPAL		128GB PCIe non-OPAL
Solid State Drive	256GB SATA non-OPAL	256GB SATA non-OPAL		256GB SATA non-OPAL
Solid State Drive	256GB PCIe non-OPAL	256GB PCIe non-OPAL	256GB PCIe non-OPAL	256GB PCIe non-OPAL
Solid State Drive	512GB SATA non-OPAL	512GB SATA non-OPAL		512GB SATA non-OPAL
Solid State Drive	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL
Solid State Drive	1TB SATA non-OPAL	1TB SATA non-OPAL		1TB SATA non-OPAL
Solid State Drive	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL
Solid State Drive	2TB SATA non-OPAL	2TB SATA non-OPAL		2TB SATA non-OPAL
Solid State Drive	2TB PCIe non-OPAL	2TB PCIe non-OPAL	2TB PCIe non-OPAL	2TB PCIe non-OPAL
Removable Storage	8x DVD+/-RW	8x DVD+/-RW	8x DVD+/-RW	8x DVD+/-RW
Graphics	AMD® or nVidia® w/2GB Discrete	nVidia® GeForce™ GT730 w/2GB	nVidia® GeForce™ GT730 w/2GB	nVidia® GeForce™ GT730 w/2GB
Graphics	AMD® or nVidia® w/4GB Discrete			
Graphics	AMD® or nVidia® w/6GB Discrete	nVidia® GeForce™ RTX2060 w/6GB		nVidia® GeForce™ GTX 1060 w/6GB
Graphics	AMD® or nVidia® w/8GB Discrete	AMD® Radeon™ RX580 w/8GB		
Webcam	IR			
Wireless Interface	802.11 a/b/g/n/AC	Intel® 9560 AC w/Bluetooth 5	802.11 a/b/g/n/AC w/Bluetooth 4.2	Intel® 9560 AC w/Bluetooth 5
Bluetooth Interface	4			
Security	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium
Security	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium
Security	6 Yr. Absolute DDS Premium			
Warranty	1 Additional Year	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive
Warranty	2 Additional Years			Additional 2 Yrs. NBD Onsite Service Keep Your Hard Drive
Warranty	3 Additional Years			
ACCESSORY OPTIONS (ordered at initial purchase or at a later time)				
Video Dongle Adapter	DisplayPort to Dual DisplayPort			DisplayPort to Dual DisplayPort
Video Dongle Adapter	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI
Video Dongle Adapter	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI
Video Dongle Adapter	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA
Video Dongle Adapter	HDMI to VGA		HDMI to VGA	
Video Dongle Adapter	HDMI to DisplayPort			
Video Dongle Adapter	MiniDisplayPort to DisplayPort		MiniDisplayPort to DisplayPort	
Removable Storage	USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW
Lock Kit	Lock Kit	Standard Lock w/Cable		Security Lock
Mounting Bracket	Mounting Bracket	Quick Release Bracket for Mini PC	Micro AIO Stand	
Mounting Bracket	Mounting Bracket	Integrated Work Center for Mini PC		

CONFIGURATION 6 PERFORMANCE COMPUTER COMPARISON



**HP
ProDesk 600 G5
\$830.00**

**Lenovo
ThinkCentre M920T
\$830.86**

**Dell
OptiPlex 7070
\$846.51**

Features	Base Specifications	Product Details	Product Details	Product Details
Model /Chassis Type	Mini Tower	Mini Tower	Mini Tower	Mini Tower
Display Size				
Processor	Intel® Core™ i7 9700 3.00GHz, 12M, 8 Core, 8 Thread	Intel® Core™ i7 9700 3.00GHz, 12M, 8 Core, 8 Thread	Intel® Core™ i7 9700 3.00GHz, 12M, 8 Core, 8 Thread	Intel® Core™ i7 9700 3.00GHz, 12M, 8 Core, 8 Thread
BIOS Configuration	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive
Operating System	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS
RAM	16GB DDR4 non-ECC	16GB DDR4 non-ECC	16GB DDR4 non-ECC	16GB DDR4 non-ECC
Hard Disk	256GB SSD SATA non-OPAL	256GB SSD SATA non-OPAL	256GB SSD non-OPAL	256GB PCIe non-OPAL
Removable Storage				
Video Graphics	AMD® / nVidia® w/2GB	nVidia® GeForce™ GT730 w/2GB	nVidia® GeForce™ GT730 w/2GB	nVidia® GeForce™ GT730 w/2GB
Web Camera				
Sound	High Definition Audio	High Definition Audio	High Definition Audio	High Definition Audio
Network Interface	Intel® Gigabit LAN 10/100/1000	Intel® I219-LM Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000
VDI Protocols				
Security	Intel® vPro™	Intel® vPro™	Intel® vPro™	Intel® vPro™
EnergyStar Level	4	6	6	7
ePEAT Level	Bronze	Gold	Gold	Bronze
Mouse	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll
Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard
Warranty	4 Year NBD Onsite Service (Keep Your Hard Drive)	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive
RAM Maximum		128GB	64GB	64GB
DIMM Slots		4	4	4
PCI Slots Total		2	3	4
Media Card Slots			1	
USB Ports - Front (2.0 / 3.0 / C)		(2) 2.0 / (2) 3.1 / (1) C	(2) 3.1	(2) 2.0 / (1) 3.1 / (1) C
USB Ports - Rear (2.0 / 3.0 / C)		(2) 2.0 / (4) 3.1	(4) 3.1	(2) 2.0 / (4) 3.1
Serial Port (9pin, 16550)				
Maximum Support Video Resolution		4096 x 2160	5130 x 3200	4196 x 2160
VGA Out			1	
DVI Out				
HDMI Out		1		
DisplayPort Out		2	1	2
Stereo line-in Connection		1	1	
Microphone-in Connection		1	1	1
Speakers/line-out Connection		1	1	1
Active/Operating (Watts)		13.59	180	TBD
Power Save/Sleep Mode (Watts)		1.32	19 / 32	TBD
Acoustics (max. dB)		29	26	26.3
Dimensions (inches W x D x H)		6.69 x 10.79 x 13.3	6.5 x 12.65 x 16.15	6.1 x 10.8 x 13.8
Weight (.lbs.)		15.77	15.45	17.49
Chassis Lock & Cable Loop		Yes	Yes	Yes
UPGRADE OPTIONS (to be ordered at initial purchase)				
Chassis	Desktop			
Chassis	Small Form Factor (SFF)	Small Form Factor (SFF)	Small Form Factor (SFF)	Small Form Factor (SFF)
Chassis	Ultra Small Form Factor (USFF)	Ultra Small Form Factor (USFF)	Ultra Small Form Factor (USFF)	Ultra Small Form Factor (USFF)
Operating System	Windows 10IoT			
RAM	16GB non-ECC			
RAM	32GB non-ECC	32GB non-ECC	32GB non-ECC	32GB non-ECC
RAM	64GB non-ECC	64GB non-ECC	64GB non-ECC	64GB non-ECC
RAM	32GB ECC			
RAM	64GB ECC			
RAM	128GB ECC			
RAM	256GB ECC			
Flash Drive	64GB			
Flash Drive	128GB			
Flash Drive	256GB			
Flash Drive	512GB			
Hard Drive	1TB SATA 6.0Gb/s non-OPAL	1TB SATA 6.0Gb/s non-OPAL	1TB SATA 7200RPM non-OPAL	1TB SATA 6.0Gb/s non-OPAL
Hard Drive	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 7200RPM non-OPAL	2TB SATA 6.0Gb/s non-OPAL
Solid State Drive	128GB PCIe non-OPAL			
Solid State Drive	256GB SATA non-OPAL			
Solid State Drive	256GB PCIe non-OPAL	256GB PCIe non-OPAL	256GB PCIe non-OPAL	
Solid State Drive	512GB SATA non-OPAL	512GB SATA non-OPAL	512GB SATA non-OPAL	
Solid State Drive	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL
Solid State Drive	1TB SATA non-OPAL	1TB SATA non-OPAL	1TB SATA non-OPAL	
Solid State Drive	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	
Solid State Drive	2TB SATA non-OPAL	2TB SATA non-OPAL		
Solid State Drive	2TB PCIe non-OPAL	2TB PCIe non-OPAL		2TB PCIe non-OPAL
Removable Storage	8x DVD+/-RW	8x DVD+/-RW	8x DVD+/-RW	8x DVD+/-RW
Graphics	AMD® or nVidia® w/2GB Discrete			
Graphics	AMD® or nVidia® w/4GB Discrete			
Graphics	AMD® or nVidia® w/6GB Discrete	nVidia® GeForce™ RTX2060 w/6GB	nVidia® GeForce™ GTX 1060 w/6GB	
Graphics	AMD® or nVidia® w/8GB Discrete	AMD® Radeon™ RX580 w/8GB		
Webcam	IR			
Wireless Interface	802.11 a/b/g/n/AC	Intel® 9560 AC w/Bluetooth 5	Intel® 9560 AC w/Bluetooth 5	802.11 a/b/g/n/AC w/Bluetooth 4.2
Bluetooth Interface	4			
Security	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium
Security	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium
Security	6 Yr. Absolute DDS Premium			
Warranty	1 Additional Year	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive
Warranty	2 Additional Years		Additional 2 Yrs. NBD Onsite Service Keep Your Hard Drive	
Warranty	3 Additional Years			
ACCESSORY OPTIONS (ordered at initial purchase or at a later time)				
Video Dongle Adapter	DisplayPort to Dual DisplayPort		DisplayPort to Dual DisplayPort	
Video Dongle Adapter	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI
Video Dongle Adapter	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI
Video Dongle Adapter	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA
Video Dongle Adapter	HDMI to VGA			HDMI to VGA
Video Dongle Adapter	HDMI to DisplayPort			
Video Dongle Adapter	MiniDisplayPort to DisplayPort			MiniDisplayPort to DisplayPort
Removable Storage	USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW
Lock Kit	Lock Kit	Standard Lock w/Cable	Security Lock	
Mounting Bracket	Mounting Bracket	Quick Release Bracket for Mini PC		Micro AIO Stand
Mounting Bracket	Mounting Bracket	Integrated Work Center for Mini PC		

CONFIGURATION 7 BUSINESS WORKSTATION COMPARISON



HP Z6 G4 **Lenovo ThinkStation P720** **Dell Precision 7920**

\$1,913.00 **\$1,913.83** **\$2,108.37**

Features	Base Specifications	Product Details	Product Details	Product Details
Model / Chassis Type	Tower	Mini Tower	Mini Tower	Mini Tower
Display Size				
Processor	Intel® Xeon® 4210 2.20GHz, 14M, 10 Core, 20 Thread	Intel® Xeon® 4210 2.20GHz, 14M, 10 Core, 20 Thread	Intel® Xeon® 4210 2.20GHz, 14M, 10 Core, 20 Thread	Intel® Xeon® 4210 2.20GHz, 14M, 10 Core, 20 Thread
BIOS Configuration	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive
Operating System	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS
RAM	16GB DDR4 ECC	16GB DDR4 ECC	16GB DDR4 ECC	16GB DDR4 ECC
Hard Disk	512GB SSD SATA non-OPAL	512GB SSD SATA non-OPAL	512GB SSD SATA non-OPAL	512GB SSD SATA non-OPAL
Removable Storage		16x DVD+-RW		
Video Graphics	AMD® / nVidia® w/2GB	nVidia® Quadro™ P400 w/2GB	nVidia® Quadro™ P620 w/2GB	nVidia® Quadro™ P620 w/2GB
Web Camera				
Sound	High Definition Audio	High Definition Audio	High Definition Audio	High Definition Audio
Network Interface	Intel® Gigabit LAN 10/100/1000	Intel® I219-LM Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000
VDI Protocols				
Security	Intel® vPro™	Intel® vPro™	Intel® vPro™	Intel® vPro™
EnergyStar Level	4	6	6.1	6
ePEAT Level	Bronze	Gold	Gold	Bronze
Mouse	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll
Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard
Warranty	4 Year NBD Onsite Service (Keep Your Hard Drive)	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive
RAM Maximum		384GB	768GB	4TB
DIMM Slots		6	12	24
PCI Slots Total		8	3	4
Media Card Slots			1	1
USB Ports - Front (2.0 / 3.0 / C)		(4) 3.1	(4) 3.0	(2) 3.1 / (2) C
USB Ports - Rear (2.0 / 3.0 / C)		(6) 3.1	(4) 2.0 / (4) 3.0	(6) 3.1
Serial Port (9pin, 16550)				1
Maximum Support Video Resolution		5120 x 2880	5130 x 3200	1920 x 1080
VGA Out				
DVI Out				
HDMI Out				1
DisplayPort Out		4 mini	1	1
Stereo line-in Connection		1	1	1
Microphone-in Connection		1	1	1
Speakers/line-out Connection		1	1	1
Active/Operating (Watts)		TBD	690	TBD
Power Save/Sleep Mode (Watts)		21	25 / 44	TBD
Acoustics (max. dB)		18	36	TBD
Dimensions (inches W x D x H)		6.65 x 18.3 x 17.5	6.89 x 19.1 x 17.6	6.79 x 18.3 x 18.54
Weight (.lbs.)		30.1	52.25	45
Chassis Lock & Cable Loop		Yes	Yes	Yes
UPGRADE OPTIONS (to be ordered at initial purchase)				
Chassis	Desktop			
Chassis	Small Form Factor (SFF)			
Chassis	Ultra Small Form Factor (USFF)			
Operating System	Windows 10IoT			
RAM	16GB non-ECC			
RAM	32GB non-ECC			
RAM	64GB non-ECC			
RAM	32GB ECC	32GB ECC	32GB ECC	32GB ECC
RAM	64GB ECC	64GB ECC	64GB ECC	64GB ECC
RAM	128GB ECC	128GB ECC	128GB ECC	128GB ECC
RAM	256GB ECC	256GB ECC	256GB ECC	256GB ECC
Flash Drive	64GB			
Flash Drive	128GB			
Flash Drive	256GB			
Flash Drive	512GB			
Hard Drive	1TB SATA 6.0Gb/s non-OPAL			
Hard Drive	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 7200RPM non-OPAL	2TB SATA 6.0Gb/s non-OPAL
Solid State Drive	128GB PCIe non-OPAL			
Solid State Drive	256GB SATA non-OPAL			
Solid State Drive	256GB PCIe non-OPAL			
Solid State Drive	512GB SATA non-OPAL			
Solid State Drive	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL
Solid State Drive	1TB SATA non-OPAL	1TB SATA non-OPAL	1TB SATA non-OPAL	1TB SATA non-OPAL
Solid State Drive	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL
Solid State Drive	2TB SATA non-OPAL	2TB SATA non-OPAL	2TB SATA non-OPAL	2TB SATA non-OPAL
Solid State Drive	2TB PCIe non-OPAL	2TB PCIe non-OPAL	2TB PCIe non-OPAL	2TB PCIe non-OPAL
Removable Storage	8x DVD+-RW	8x DVD+-RW	8x DVD+-RW	8x DVD+-RW
Graphics	AMD® or nVidia® w/2GB Discrete			
Graphics	AMD® or nVidia® w/4GB Discrete	nVidia® Quadro™ P2000 w/5GB	nVidia® Quadro™ P1000 w/4GB	nVidia® Quadro™ P1000 w/4GB
Graphics	AMD® or nVidia® w/6GB Discrete	AMD® Radeon™ Pro WX7000 w/8GB		
Graphics	AMD® or nVidia® w/8GB Discrete	nVidia® Quadro™ P4000 w/8GB	nVidia® Quadro™ RTX 4000 w/8GB	nVidia® Quadro™ P4000 w/8GB
Webcam	IR			
Wireless Interface	802.11 a/b/g/n/AC		Intel® 9560 AC w/Bluetooth 5	802.11 a/b/g/n/AC w/Bluetooth 4.2
Bluetooth Interface	4			
Security	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium
Security	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium
Security	6 Yr. Absolute DDS Premium			
Warranty	1 Additional Year	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive
Warranty	2 Additional Years		Additional 2 Yrs. NBD Onsite Service Keep Your Hard Drive	
Warranty	3 Additional Years			
ACCESSORY OPTIONS (ordered at initial purchase or at a later time)				
Video Dongle Adapter	DisplayPort to Dual DisplayPort		DisplayPort to Dual DisplayPort	
Video Dongle Adapter	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI
Video Dongle Adapter	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI
Video Dongle Adapter	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA
Video Dongle Adapter	HDMI to VGA			HDMI to VGA
Video Dongle Adapter	HDMI to DisplayPort			
Video Dongle Adapter	MiniDisplayPort to DisplayPort			MiniDisplayPort to DisplayPort
Removable Storage	USB 8x DVD+-RW	USB 8x DVD+-RW	USB 8x DVD+-RW	USB 8x DVD+-RW
Lock Kit	Lock Kit	Standard Lock w/Cable	Security Lock	
Mounting Bracket	Mounting Bracket			
Mounting Bracket	Mounting Bracket			

CONFIGURATION 8 PERFORMANCE WORKSTATION COMPARISON



**Lenovo
ThinkStation P720
\$2,780.75**


**HP
Z6 G4
\$2,895.00**

**Dell
Precision 7920
\$3,047.94**

Features	Base Specifications	Product Details	Product Details	Product Details
Model /Chassis Type	Tower	Mini Tower	Mini Tower	Mini Tower
Display Size				
Processor	Intel® Xeon® 4216 2.10GHz, 22M, 16 Core, 32 Thread	Intel® Xeon® 4216 2.10GHz, 22M, 16 Core, 32 Thread	Intel® Xeon® 4216 2.10GHz, 22M, 16 Core, 32 Thread	Intel® Xeon® 4216 2.10GHz, 22M, 16 Core, 32 Thread
BIOS Configuration	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive
Operating System	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS
RAM	32GB DDR4 ECC	32GB DDR4 ECC	32GB DDR4 ECC	32GB DDR4 ECC
Hard Disk	1TB SSD SATA non-OPAL	1TB SSD SATA non-OPAL	1TB SSD SATA non-OPAL	1TB SSD SATA non-OPAL
Removable Storage			16x DVD+/-RW	
Video Graphics	AMD® / nVidia® w/4GB	nVidia® Quadro™ P1000 w/4GB	nVidia® Quadro™ P2000 w/5GB	nVidia® Quadro™ P1000 w/4GB
Web Camera				
Sound	High Definition Audio	High Definition Audio	High Definition Audio	High Definition Audio
Network Interface	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000
VDI Protocols				
Security	Intel® vPro™	Intel® vPro™	Intel® vPro™	Intel® vPro™
EnergyStar Level	4	6.1	6	6
ePEAT Level	Bronze	Gold	Gold	Bronze
Mouse	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll
Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard
Warranty	4 Year NBD Onsite Service (Keep Your Hard Drive)	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive
RAM Maximum		768GB	384GB	4TB
DIMM Slots		12	6	24
PCI Slots Total		3	8	4
Media Card Slots		1		1
USB Ports - Front (2.0 / 3.0 / C)		(4) 3.0	(4) 3.1	(2) 3.1 / (2) C
USB Ports - Rear (2.0 / 3.0 / C)		(4) 2.0 / (4) 3.0	(6) 3.1	(6) 3.1
Serial Port (9pin, 16550)				1
Maximum Support Video Resolution		5130 x 3200	5120 x 2880	1920 x 1080
VGA Out				
DVI Out				1
HDMI Out				1
DisplayPort Out		1	4 mini	1
Stereo line-in Connection		1	1	1
Microphone-in Connection		1	1	1
Speakers/line-out Connection		1	1	1
Active/Operating (Watts)		690	TBD	TBD
Power Save/Sleep Mode (Watts)		25 / 44	21	TBD
Acoustics (max. dB)		36	18	TBD
Dimensions (inches W x D x H)		6.89 x 19.1 x 17.6	6.65 x 18.3 x 17.5	6.79 x 18.3 x 18.54
Weight (.lbs.)		52.25	30.1	45
Chassis Lock & Cable Loop		Yes	Yes	Yes
UPGRADE OPTIONS (to be ordered at initial purchase)				
Chassis	Desktop			
Chassis	Small Form Factor (SFF)			
Chassis	Ultra Small Form Factor (USFF)			
Operating System	Windows 10IoT			
RAM	16GB non-ECC			
RAM	32GB non-ECC			
RAM	64GB non-ECC			
RAM	32GB ECC			
RAM	64GB ECC	64GB ECC	64GB ECC	64GB ECC
RAM	128GB ECC	128GB ECC	128GB ECC	128GB ECC
RAM	256GB ECC	256GB ECC	256GB ECC	256GB ECC
Flash Drive	64GB			
Flash Drive	128GB			
Flash Drive	256GB			
Flash Drive	512GB			
Hard Drive	1TB SATA 6.0Gb/s non-OPAL			
Hard Drive	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 7200RPM non-OPAL	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 6.0Gb/s non-OPAL
Solid State Drive	128GB PCIe non-OPAL			
Solid State Drive	256GB SATA non-OPAL			
Solid State Drive	256GB PCIe non-OPAL			
Solid State Drive	512GB SATA non-OPAL			
Solid State Drive	512GB PCIe non-OPAL			
Solid State Drive	1TB SATA non-OPAL			
Solid State Drive	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL
Solid State Drive	2TB SATA non-OPAL	2TB SATA non-OPAL	2TB SATA non-OPAL	2TB SATA non-OPAL
Solid State Drive	2TB PCIe non-OPAL	2TB PCIe non-OPAL	2TB PCIe non-OPAL	2TB PCIe non-OPAL
Removable Storage	8x DVD+/-RW	8x DVD+/-RW	8x DVD+/-RW	8x DVD+/-RW
Graphics	AMD® or nVidia® w/2GB Discrete			
Graphics	AMD® or nVidia® w/4GB Discrete			
Graphics	AMD® or nVidia® w/6GB Discrete		AMD® Radeon™ Pro WX7000 w/8GB	
Graphics	AMD® or nVidia® w/8GB Discrete	nVidia® Quadro™ RTX 4000 w/8GB	nVidia® Quadro™ P4000 w/8GB	nVidia® Quadro™ P4000 w/8GB
Webcam	IR			
Wireless Interface	802.11 a/b/g/n/AC	Intel® 9560 AC w/Bluetooth 5		802.11 a/b/g/n/AC w/Bluetooth 4.2
Bluetooth Interface	4			
Security	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium
Security	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium.	5 Yr. Absolute DDS Premium.	5 Yr. Absolute DDS Premium.
Security	6 Yr. Absolute DDS Premium			
Warranty	1 Additional Year	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive
Warranty	2 Additional Years	Additional 2 Yrs. NBD Onsite Service Keep Your Hard Drive		
Warranty	3 Additional Years			
ACCESSORY OPTIONS (ordered at initial purchase or at a later time)				
Video Dongle Adapter	DisplayPort to Dual DisplayPort	DisplayPort to Dual DisplayPort		
Video Dongle Adapter	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI
Video Dongle Adapter	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI
Video Dongle Adapter	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA
Video Dongle Adapter	HDMI to VGA			HDMI to VGA
Video Dongle Adapter	HDMI to DisplayPort			
Video Dongle Adapter	MiniDisplayPort to DisplayPort			MiniDisplayPort to DisplayPort
Removable Storage	USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW
Lock Kit	Lock Kit	Security Lock	Standard Lock w/Cable	
Mounting Bracket	Mounting Bracket			
Mounting Bracket	Mounting Bracket			

DELL COMPUTERS

Sterling Computers
MA-IS-2040123

	CONFIGURATION 1 BUSINESS THIN CLIENT	CONFIGURATION 2 PERFORMANCE THIN CLIENT	CONFIGURATION 3 BUSINESS ALL-IN-ONE	CONFIGURATION 4 PERFORMANCE ALL-IN-ONE	CONFIGURATION 5 BUSINESS COMPUTER	CONFIGURATION 6 PERFORMANCE COMPUTER	CONFIGURATION 7 BUSINESS WORKSTATION	CONFIGURATION 8 PERFORMANCE WORKSTATION
								
Model	No Offering	No Offering	OptiPlex 7470 AIO	OptiPlex 7470 AIO	OptiPlex 7070	OptiPlex 7070	Precision 7920	Precision 7920
Cost	No Offering	No Offering	\$947.99	\$1,259.65	\$634.25	\$846.51	\$2,108.37	\$3,047.94
Features	No Offering	No Offering	Product Details	Product Details	Product Details	Product Details	Product Details	Product Details
Model /Chassis Type			Integrated w/Monitor	Integrated w/Monitor	Mini Tower	Mini Tower	Mini Tower	Mini Tower
Display Size			23.8 Inch Touchscreen	23.8 Inch Touchscreen				
Processor			Intel® Core™ i5 9600 3.10GHz, 9M, 6 Core, 6 Thread	Intel® Core™ i7 9700 3.00GHz, 12M, 8 Core, 8 Thread	Intel® Core™ i5 9600 3.10GHz, 9M, 6 Core, 6 Thread	Intel® Core™ i7 9700 3.00GHz, 12M, 8 Core, 8 Thread	Intel® Xeon® 4210 2.20GHz, 14M, 10 Core, 20 Thread	Intel® Xeon® 4216 2.10GHz, 22M, 16 Core, 32 Thread
BIOS Configuration			Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive
Operating System			Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS
RAM			8GB DDR4 non-ECC	16GB DDR4 non-ECC	8GB DDR4 non-ECC	16GB DDR4 non-ECC	16GB DDR4 ECC	32GB DDR4 ECC
Hard Disk			128GB SSD SATA non-OPAL	256GB PCIe non-OPAL	128GB PCIe non-OPAL	256GB PCIe non-OPAL	512GB SSD SATA non-OPAL	1TB SSD SATA non-OPAL
Removable Storage								
Video Graphics			Intel® HD Graphics	nVidia® GeForce™ GTX 1050 w/4GB	Intel® HD Graphics	nVidia® GeForce™ G7 730 w/2GB	nVidia® Quadro™ P620 w/2GB	nVidia® Quadro™ P1000 w/4GB
Web Camera			Front	Front				
Sound			High Definition Audio	High Definition Audio	High Definition Audio	High Definition Audio	High Definition Audio	High Definition Audio
Network Interface			Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000
VDI Protocols								
Security			Intel® vPro™	Intel® vPro™	Intel® vPro™	Intel® vPro™	Intel® vPro™	Intel® vPro™
EnergyStar Level			7	7	7	7	6	6
ePEAT Level			Bronze	Bronze	Bronze	Bronze	Bronze	Bronze
Mouse			USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll
Keyboard			Standard Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard
Warranty			4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive
RAM Maximum			32GB	32GB	64GB	64GB	4TB	4TB
DIMM Slots			2	2	4	4	24	24
PCI Slots Total			2	2	4	4	4	4
Media Card Slots			1	1			1	1
USB Ports - Front (2.0 / 3.0 / C)			(1) 3.1 / (1) C	(1) 3.1 / (1) C	(2) 2.0 / (1) 3.1 / (1) C	(2) 2.0 / (1) 3.1 / (1) C	(2) 3.1 / (2) C	(2) 3.1 / (2) C
USB Ports - Rear (2.0 / 3.0 / C)			(4) 3.1	(4) 3.1	(2) 2.0 / (4) 3.1	(2) 2.0 / (4) 3.1	(6) 3.1	(6) 3.1
Serial Port (9pin, 16550)							1	1
Maximum Support Video Resolution			1920 x 1080	1920 x 1080	4196 x 2160	4196 x 2160	1920 x 1080	1920 x 1080
VGA Out								
DVI Out								
HDMI Out			2	2			1	1
DisplayPort Out			1	1	2	2	1	1
Stereo line-in Connection							1	1
Microphone-in Connection							1	1
Speakers/line-out Connection			Integrated	Integrated	1	1	1	1
Active/Operating (Watts)			240	240	TBD	TBD	TBD	TBD
Power Save/Sleep Mode (Watts)			2	2	TBD	TBD	TBD	TBD
Acoustics (max. dB)			39	39	26.3	26.3	TBD	TBD
Dimensions (inches W x D x H)			21.26x 2.06 x 13.54	21.26x 2.06 x 13.54	6.1 x 10.8 x 13.8	6.1 x 10.8 x 13.8	6.79 x 16.3 x 18.54	6.79 x 16.3 x 18.54
Weight (.lbs.)			13.31	13.31	17.49	17.49	45	45
Chassis Lock & Cable Loop			Yes	Yes	Yes	Yes	Yes	Yes

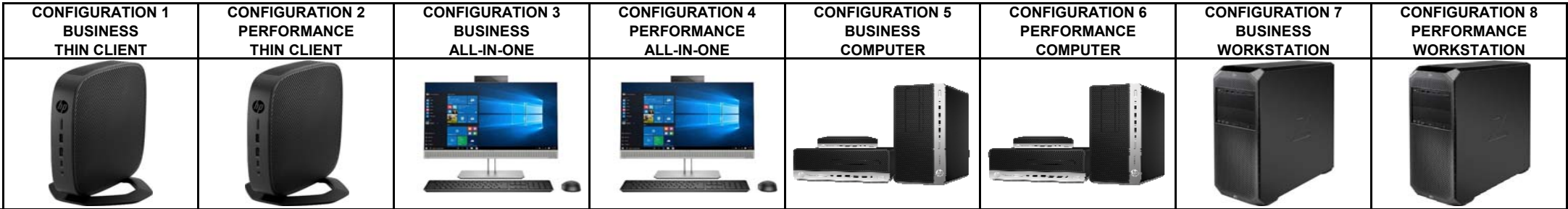
DELL COMPUTERS

Sterling Computers
MA-IS-2040123

	CONFIGURATION 1 BUSINESS THIN CLIENT	CONFIGURATION 2 PERFORMANCE THIN CLIENT	CONFIGURATION 3 BUSINESS ALL-IN-ONE	CONFIGURATION 4 PERFORMANCE ALL-IN-ONE	CONFIGURATION 5 BUSINESS COMPUTER	CONFIGURATION 6 PERFORMANCE COMPUTER	CONFIGURATION 7 BUSINESS WORKSTATION	CONFIGURATION 8 PERFORMANCE WORKSTATION
								
Model	No Offering	No Offering	OptiPlex 7470 AIO	OptiPlex 7470 AIO	OptiPlex 7070	OptiPlex 7070	Precision 7920	Precision 7920
Cost	No Offering	No Offering	\$947.99	\$1,259.65	\$634.25	\$846.51	\$2,108.37	\$3,047.94
Features	No Offering	No Offering	Product Details	Product Details	Product Details	Product Details	Product Details	Product Details
UPGRADE OPTIONS (to be ordered at initial purchase)								
Chassis - Desktop								
Chassis - Small Form Factor (SFF)					Small Form Factor (SFF)	Small Form Factor (SFF)		
Chassis - Ultra Small Form Factor (USFF)					Ultra Small Form Factor (USFF)	Ultra Small Form Factor (USFF)		
Operating System - Windows 10 IoT								
RAM - 16GB non-ECC			16GB non-ECC		16GB non-ECC			
RAM - 32GB non-ECC			32GB non-ECC	32GB non-ECC	32GB non-ECC	32GB non-ECC		
RAM - 64GB non-ECC					64GB non-ECC	64GB non-ECC		
RAM - 32GB ECC							32GB ECC	
RAM - 64GB ECC							64GB ECC	64GB ECC
RAM - 128GB ECC							128GB ECC	128GB ECC
RAM - 256GB ECC							256GB ECC	256GB ECC
Flash Drive - 64GB								
Flash Drive - 128GB								
Flash Drive - 256GB								
Flash Drive - 512GB								
Hard Drive - 1TB SATA 6.0Gb/s non-OPAL			1TB SATA 6.0Gb/s non-OPAL	1TB SATA 6.0Gb/s non-OPAL	1TB SATA 6.0Gb/s non-OPAL	1TB SATA 6.0Gb/s non-OPAL		
Hard Drive - 2TB SATA 6.0Gb/s non-OPAL			2TB SATA 6.0Gb/s non-OPAL	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 6.0Gb/s non-OPAL
Solid State Drive - 128GB PCIe non-OPAL								
Solid State Drive - 256GB SATA non-OPAL								
Solid State Drive - 256GB PCIe non-OPAL			256GB PCIe non-OPAL		256GB PCIe non-OPAL			
Solid State Drive - 512GB SATA non-OPAL								
Solid State Drive - 512GB PCIe non-OPAL			512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL
Solid State Drive - 1TB SATA non-OPAL							1TB SATA non-OPAL	
Solid State Drive - 1TB PCIe non-OPAL			1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL
Solid State Drive - 2TB SATA non-OPAL								
Solid State Drive - 2TB PCIe non-OPAL					2TB PCIe non-OPAL	2TB PCIe non-OPAL	2TB PCIe non-OPAL	2TB PCIe non-OPAL
Removable Storage - 8x DVD+/-RW					8x DVD+/-RW	8x DVD+/-RW	8x DVD+/-RW	8x DVD+/-RW
Graphics - AMD or nVidia w/2GB Discrete					nVidia® GeForce™ GT730 w/2GB			
Graphics - AMD or nVidia w/4GB Discrete			nVidia® GeForce™ GTX 1050 w/4GB				nVidia® Quadro™ P1000 w/4GB	
Graphics - AMD or nVidia w/6GB Discrete								
Graphics - AMD or nVidia w/8GB Discrete							nVidia® Quadro™ P4000 w/8GB	nVidia® Quadro™ P4000 w/8GB
Webcam - IR								
Wireless Interface - 802.11 a/b/g/n/AC			802.11 a/b/g/n/AC w/Bluetooth 4	802.11 a/b/g/n/AC w/Bluetooth 4	802.11 a/b/g/n/AC w/Bluetooth 4.2	802.11 a/b/g/n/AC w/Bluetooth 4.2	802.11 a/b/g/n/AC w/Bluetooth 4.2	802.11 a/b/g/n/AC w/Bluetooth 4.2
Bluetooth Interface - 4								
Security - 4yr. Absolute DDS Premium			4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium
Security - 5yr. Absolute DDS Premium			5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium
Security - 6yr. Absolute DDS Premium								
Warranty - Additional 1 Year			Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive
Warranty - Additional 2 Years								
Warranty - Additional 3 Years								
ACCESSORY OPTIONS (ordered at initial purchase or at a later time)								
Video Adapter - DisplayPort to Dual DisplayPort			DisplayPort to Dual DisplayPort	DisplayPort to Dual DisplayPort				
Video Adapter - DisplayPort to DVI			DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI
Video Adapter - DisplayPort to HDMI			DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI
Video Adapter - DisplayPort to VGA			DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA
Video Adapter - HDMI to VGA			HDMI to VGA	HDMI to VGA	HDMI to VGA	HDMI to VGA	HDMI to VGA	HDMI to VGA
Video Adapter - HDMI to DisplayPort			HDMI to DisplayPort	HDMI to DisplayPort				
Video Adapter - MiniDisplayPort to DisplayPort			MiniDisplayPort to DisplayPort	MiniDisplayPort to DisplayPort	MiniDisplayPort to DisplayPort	MiniDisplayPort to DisplayPort	MiniDisplayPort to DisplayPort	MiniDisplayPort to DisplayPort
Removable Storage - USB 8x DVD+/-RW			USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW
Lock Kit			Lock Kit	Lock Kit				
Mounting Bracket					Micro AIO Stand	Micro AIO Stand		
Mounting Bracket								

HP COMPUTERS









**Golden Star
Technology
MA-IS-2040124**



Model	T640	T740	EliteOne 800 G5 AIO	EliteOne 800 G5 AIO	ProDesk 600 G5	ProDesk 600 G5	Z6 G4	Z6 G4
Cost	\$414.70	\$530.00	\$929.00	\$1,194.00	\$634.00	\$830.00	\$1,913.00	\$2,895.00
Features	Product Details		Product Details		Product Details		Product Details	
Model / Chassis Type	Brick		Integrated w/Monitor		Mini Tower		Mini Tower	
Display Size			23.8 Inch FHD Touchscreen					
Processor	AMD® R1505G Dual Core 2.4GHz		Intel® Core™ i5 9600 3.10GHz, 9M, 6 Core, 6 Thread		Intel® Core™ i5 9600 3.10GHz, 9M, 6 Core, 6 Thread		Intel® Xeon® 4210 2.20GHz, 14M, 10 Core, 20 Thread	
BIOS Configuration	Boot to Flash		Boot to Hard Disk Drive		Boot to Hard Disk Drive		Boot to Hard Disk Drive	
Operating System	HP ThinPro OS		Windows 10 Pro 64Bit w/NTFS		Windows 10 Pro 64Bit w/NTFS		Windows 10 Pro 64Bit w/NTFS	
RAM	8GB DDR4 non-ECC		8GB DDR4 non-ECC		8GB DDR4 non-ECC		16GB DDR4 ECC	
Hard Disk	32GB Flash		128GB PCIe non-OPAL		128GB SSD SATA non-OPAL		512GB SSD SATA non-OPAL	
Removable Storage							16x DVD+-RW	
Video Graphics	AMD® Radeon™ Vega 3 (Dual Monitor Capable @ 1920x1200 each)		Intel® HD Graphics 630		Intel® HD Graphics 630		nVidia® GeForce™ GT730 w/2GB	
Web Camera			Front					
Sound	High Definition Audio (Full Duplex)		Bang & Olufsen HD Audio		High Definition Audio		High Definition Audio	
Network Interface	Realtek RTL8111HSH 10/100/1000		Intel® I219-LM Gigabit LAN 10/100/1000		Intel® I219-LM Gigabit LAN 10/100/1000		Intel® I219-LM Gigabit LAN 10/100/1000	
VDI Protocols	PCoIP, RDP, HDX, Remote FX, Blast							
Security			Intel® vPro™		Intel® vPro™		Intel® vPro™	
EnergyStar Level	7.1		4		6		6	
ePEAT Level	Silver		Gold		Gold		Gold	
Mouse	USB 2-Button Optical w/Scroll		USB 2-Button Optical w/Scroll		USB 2-Button Optical w/Scroll		USB 2-Button Optical w/Scroll	
Keyboard	Standard Keyboard		Standard Keyboard		Standard Keyboard		Standard Keyboard	
Warranty	3 Year Depot Service		4 Year NBD Onsite Service Keep Your Hard Drive		4 Year NBD Onsite Service Keep Your Hard Drive		4 Year NBD Onsite Service Keep Your Hard Drive	
RAM Maximum	32GB		32GB		128GB		384GB	
DIMM Slots	2		2		4		6	
PCI Slots Total	1				2		8	
Media Card Slots								
USB Ports - Front (2.0 / 3.0 / C)	(2) 3.1 / (1) C		(1) 3.0 / (1) C		(2) 2.0 / (2) 3.1 / (1) C		(4) 3.1	
USB Ports - Rear (2.0 / 3.0 / C)	(2) 2.0 / (2) 3.1		(2) 3.1		(2) 2.0 / (4) 3.1		(6) 3.1	
Serial Port (9pin, 16550)								
Maximum Support Video Resolution	3840 x 2160		1920 x 1080		4096 x 2160		5120 x 2880	
VGA Out								
DVI Out								
HDMI Out			1		1			
DisplayPort Out	3		1		2		4 mini	
Stereo line-in Connection			1		1		1	
Microphone-in Connection	1		1		1		1	
Speakers/line-out Connection	1		1		1		1	
Active/Operating (Watts)	9.35		14.68		13.59		TBD	
Power Save/Sleep Mode (Watts)	1.87		0.78		1.32		21	
Acoustics (max. dB)	2.5		15		29		18	
Dimensions (inches W x D x H)	1.37 x 7.71 x 7.71		21.2 x 7.5 x 16.5		6.69 x 10.79 x 13.3		6.65 x 18.3 x 17.5	
Weight (. lbs.)	2.2		18.25		15.77		30.1	
Chassis Lock & Cable Loop	Yes		Yes		Yes		Yes	

HP COMPUTERS







**Golden Star
Technology
MA-IS-2040124**

CONFIGURATION 1 BUSINESS THIN CLIENT	CONFIGURATION 2 PERFORMANCE THIN CLIENT	CONFIGURATION 3 BUSINESS ALL-IN-ONE	CONFIGURATION 4 PERFORMANCE ALL-IN-ONE	CONFIGURATION 5 BUSINESS COMPUTER	CONFIGURATION 6 PERFORMANCE COMPUTER	CONFIGURATION 7 BUSINESS WORKSTATION	CONFIGURATION 8 PERFORMANCE WORKSTATION
							

Model	T640	T740	EliteOne 800 G5 AIO	EliteOne 800 G5 AIO	ProDesk 600 G5	ProDesk 600 G5	Z6 G4	Z6 G4
Cost	\$414.70	\$530.00	\$929.00	\$1,194.00	\$634.00	\$830.00	\$1,913.00	\$2,895.00
Features	Product Details							
UPGRADE OPTIONS (to be ordered at initial purchase)								
Chassis - Desktop					Small Form Factor (SFF)	Small Form Factor (SFF)		
Chassis - Small Form Factor (SFF)					Ultra Small Form Factor (USFF)	Ultra Small Form Factor (USFF)		
Chassis - Ultra Small Form Factor (USFF)								
Operating System - Windows 10 IoT	Windows 10 IoT Ent. LTSB 2019	Windows 10 IoT Ent. LTSB 2019						
RAM - 16GB non-ECC	16GB non-ECC		16GB non-ECC		16GB non-ECC			
RAM - 32GB non-ECC	32GB non-ECC	32GB non-ECC	32GB non-ECC	32GB non-ECC	32GB non-ECC	32GB non-ECC		
RAM - 64GB non-ECC			64GB non-ECC	64GB non-ECC	64GB non-ECC	64GB non-ECC		
RAM - 32GB ECC							32GB ECC	
RAM - 64GB ECC							64GB ECC	64GB ECC
RAM - 128GB ECC							128GB ECC	128GB ECC
RAM - 256GB ECC							256GB ECC	256GB ECC
Flash Drive - 64GB	64GB							
Flash Drive - 128GB	128GB	128GB						
Flash Drive - 256GB	256GB	256GB						
Flash Drive - 512GB	512GB	512GB						
Hard Drive - 1TB SATA 6.0Gb/s non-OPAL					1TB SATA 6.0Gb/s non-OPAL	1TB SATA 6.0Gb/s non-OPAL		
Hard Drive - 2TB SATA 6.0Gb/s non-OPAL					2TB SATA 6.0Gb/s non-OPAL	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 6.0Gb/s non-OPAL	2TB SATA 6.0Gb/s non-OPAL
Solid State Drive - 128GB PCIe non-OPAL					128GB PCIe non-OPAL			
Solid State Drive - 256GB SATA non-OPAL			256GB SATA non-OPAL		256GB SATA non-OPAL			
Solid State Drive - 256GB PCIe non-OPAL			256GB PCIe non-OPAL	256GB PCIe non-OPAL	256GB PCIe non-OPAL	256GB PCIe non-OPAL		
Solid State Drive - 512GB SATA non-OPAL			512GB SATA non-OPAL	512GB SATA non-OPAL	512GB SATA non-OPAL	512GB SATA non-OPAL		
Solid State Drive - 512GB PCIe non-OPAL			512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	
Solid State Drive - 1TB SATA non-OPAL			1TB SATA non-OPAL	1TB SATA non-OPAL	1TB SATA non-OPAL	1TB SATA non-OPAL	1TB SATA non-OPAL	
Solid State Drive - 1TB PCIe non-OPAL			1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL
Solid State Drive - 2TB SATA non-OPAL			2TB SATA non-OPAL	2TB SATA non-OPAL	2TB SATA non-OPAL	2TB SATA non-OPAL	2TB SATA non-OPAL	2TB SATA non-OPAL
Solid State Drive - 2TB PCIe non-OPAL			2TB PCIe non-OPAL	2TB PCIe non-OPAL	2TB PCIe non-OPAL	2TB PCIe non-OPAL	2TB PCIe non-OPAL	2TB PCIe non-OPAL
Removable Storage - 8x DVD+/-RW					8x DVD+/-RW	8x DVD+/-RW	8x DVD+/-RW	8x DVD+/-RW
Graphics - AMD or nVidia w/2GB Discrete		AMD® Radeon™ E9173			nVidia® GeForce™ GT730 w/2GB			
Graphics - AMD or nVidia w/4GB Discrete			AMD® Radeon™ RX560 w/4GB				nVidia® Quadro™ P2000 w/5GB	
Graphics - AMD or nVidia w/6GB Discrete					nVidia® GeForce™ RTX2060 w/6GB	nVidia® GeForce™ RTX2060 w/6GB	AMD® Radeon™ Pro WX7000 w/8GB	AMD® Radeon™ Pro WX7000 w/8GB
Graphics - AMD or nVidia w/8GB Discrete					AMD® Radeon™ RX580 w/8GB	AMD® Radeon™ RX580 w/8GB	nVidia® Quadro™ P4000 w/8GB	nVidia® Quadro™ P4000 w/8GB
Webcam - IR			IR / Dual Webcam	IR / Dual Webcam				
Wireless Interface - 802.11 a/b/g/n/AC	Intel® 9260 AC w/Bluetooth	Intel® 9260 AC w/Bluetooth	Intel® AX200 AC w/Bluetooth 5	Intel® AX200 AC w/Bluetooth 5	Intel® 9560 AC w/Bluetooth 5	Intel® 9560 AC w/Bluetooth 5		
Bluetooth Interface - 4								
Security - 4yr. Absolute DDS Premium			4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium
Security - 5yr. Absolute DDS Premium			5 Yr. Absolute DDS Premium.	5 Yr. Absolute DDS Premium.	5 Yr. Absolute DDS Premium.	5 Yr. Absolute DDS Premium.	5 Yr. Absolute DDS Premium.	5 Yr. Absolute DDS Premium.
Security - 6yr. Absolute DDS Premium								
Warranty - Additional 1 Year	1 Additional Yr. Depot Service	1 Additional Yr. Depot Service	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive
Warranty - Additional 2 Years	2 Additional Yrs. Depot Service	2 Additional Yrs. Depot Service						
Warranty - Additional 3 Years								
ACCESSORY OPTIONS (ordered at initial purchase or at a later time)								
Video Adapter - DisplayPort to Dual DisplayPort								
Video Adapter - DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI
Video Adapter - DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI
Video Adapter - DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA
Video Adapter - HDMI to VGA								
Video Adapter - HDMI to DisplayPort								
Video Adapter - MiniDisplayPort to DisplayPort								
Removable Storage - USB 8x DVD+/-RW					USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW
Lock Kit	Keyed Cable Lock	Keyed Cable Lock	Keyed Cable Lock	Keyed Cable Lock	Standard Lock w/Cable	Standard Lock w/Cable	Standard Lock w/Cable	Standard Lock w/Cable
Mounting Bracket	Quick Release Bracket	Quick Release Bracket	Quick Release Bracket	Quick Release Bracket	Quick Release Bracket for Mini PC	Quick Release Bracket for Mini PC	Quick Release Bracket for Mini PC	Quick Release Bracket for Mini PC
Mounting Bracket			AIO Reclining Stand	AIO Reclining Stand	Integrated Work Center for Mini PC	Integrated Work Center for Mini PC		







LENOVO COMPUTERS

**Technology
Integration
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MA-IS-2040125**

	CONFIGURATION 1 BUSINESS THIN CLIENT	CONFIGURATION 2 PERFORMANCE THIN CLIENT	CONFIGURATION 3 BUSINESS ALL-IN-ONE	CONFIGURATION 4 PERFORMANCE ALL-IN-ONE	CONFIGURATION 5 BUSINESS COMPUTER	CONFIGURATION 6 PERFORMANCE COMPUTER	CONFIGURATION 7 BUSINESS WORKSTATION	CONFIGURATION 8 PERFORMANCE WORKSTATION
								
Model	No Offering	No Offering	ThinkCentre M920Z AIO	ThinkCentre P330 Tiny AIO	ThinkCentre M920T	ThinkCentre M920T	ThinkStation P720	ThinkStation P720
Cost	No Offering	No Offering	\$930.86	\$1,195.75	\$680.86	\$830.86	\$1,913.83	\$2,780.75
Features	No Offering	No Offering	Product Details	Product Details	Product Details	Product Details	Product Details	Product Details
Model /Chassis Type			Integrated w/Monitor	Integrated w/Monitor	Mini Tower	Mini Tower	Mini Tower	Mini Tower
Display Size			23.8 Inch Touchscreen	23.8 Inch Touchscreen				
Processor			Intel® Core™ i5 9600 3.10GHz, 9M, 6 Core, 6 Thread	Intel® Core™ i7 9700 3.00GHz, 12M, 8 Core, 8 Thread	Intel® Core™ i5 9600 3.10GHz, 9M, 6 Core, 6 Thread	Intel® Core™ i7 9700 3.00GHz, 12M, 8 Core, 8 Thread	Intel® Xeon® 4210 2.20GHz, 14M, 10 Core, 20 Thread	Intel® Xeon® 4216 2.10GHz, 22M, 16 Core, 32 Thread
BIOS Configuration			Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive	Boot to Hard Disk Drive
Operating System			Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS	Windows 10 Pro 64Bit w/NTFS
RAM			8GB DDR4 non-ECC	16GB DDR4 non-ECC	8GB DDR4 non-ECC	16GB DDR4 non-ECC	16GB DDR4 ECC	32GB DDR4 ECC
Hard Disk			128GB SSD SATA non-OPAL	256GB SSD SATA non-OPAL	128GB SSD non-OPAL	256GB SSD non-OPAL	512GB SSD SATA non-OPAL	1TB SSD SATA non-OPAL
Removable Storage								
Video Graphics			Intel® HD Graphics 630	nVidia® Quadro™ P600 w/2GB	Intel® HD Graphics 630	nVidia® GeForce™ GT730 w/2GB	nVidia® Quadro™ P620 w/2GB	nVidia® Quadro™ P1000 w/4GB
Web Camera			Front	Front				
Sound			High Definition Audio	High Definition Audio	High Definition Audio	High Definition Audio	High Definition Audio	High Definition Audio
Network Interface			Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000	Intel® Gigabit LAN 10/100/1000
VDI Protocols								
Security			Intel® vPro™	Intel® vPro™	Intel® vPro™	Intel® vPro™	Intel® vPro™	Intel® vPro™
EnergyStar Level			7	7	6	6	6.1	6.1
ePEAT Level			Gold	Gold	Gold	Gold	Gold	Gold
Mouse			USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll	USB 2-Button Optical w/Scroll
Keyboard			Standard Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard	Standard Keyboard
Warranty			4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive	4 Year NBD Onsite Service Keep Your Hard Drive
RAM Maximum			32GB	32GB	64GB	64GB	768GB	768GB
DIMM Slots			2	2	4	4	12	12
PCI Slots Total					3	3	3	3
Media Card Slots			1		1	1	1	1
USB Ports - Front (2.0 / 3.0 / C)			(2) 3.1 / (1) C	(2) 3.1 / (1) C	(2) 3.1	(2) 3.1	(4) 3.0	(4) 3.0
USB Ports - Rear (2.0 / 3.0 / C)			(4) 3.1	(4) 3.1	(4) 3.1	(4) 3.1	(4) 2.0 / (4) 3.0	(4) 2.0 / (4) 3.0
Serial Port (9pin, 16550)			1					
Maximum Support Video Resolution			4096 x 2304	1920 x 1080	5130 x 3200	5130 x 3200	5130 x 3200	5130 x 3200
VGA Out					1	1		
DVI Out								
HDMI Out								
DisplayPort Out			1	1	1	1	1	1
Stereo line-in Connection			1	1	1	1	1	1
Microphone-in Connection			1	1	1	1	1	1
Speakers/line-out Connection					1	1	1	1
Active/Operating (Watts)			150	135	180	180	690	690
Power Save/Sleep Mode (Watts)			19 / 32	19 / 32	19 / 32	19 / 32	25 / 44	25 / 44
Acoustics (max. dB)			26	26	26	26	36	36
Dimensions (inches W x D x H)			21.3 x 1.8 x 13.7	21.25 x 11.11 x 20.06	6.5 x 12.65 x 16.15	6.5 x 12.65 x 16.15	6.89 x 19.1 x 17.6	6.89 x 19.1 x 17.6
Weight (.lbs.)			14	16	15.45	15.45	52.25	52.25
Chassis Lock & Cable Loop			Yes	Yes	Yes	Yes	Yes	Yes

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Model	No Offering	No Offering	ThinkCentre M920Z AIO	ThinkCentre P330 Tiny AIO	ThinkCentre M920T	ThinkCentre M920T	ThinkStation P720	ThinkStation P720
Cost	No Offering	No Offering	\$930.86	\$1,195.75	\$680.86	\$830.86	\$1,913.83	\$2,780.75
Features	No Offering	No Offering	Product Details	Product Details	Product Details	Product Details	Product Details	Product Details
UPGRADE OPTIONS (to be ordered at initial purchase)								
Chassis - Desktop					Desktop			
Chassis - Small Form Factor (SFF)					Small Form Factor (SFF)	Small Form Factor (SFF)		
Chassis - Ultra Small Form Factor (USFF)					Ultra Small Form Factor (USFF)	Ultra Small Form Factor (USFF)		
Operating System - Windows 10 IoT								
RAM - 16GB non-ECC			16GB non-ECC		16GB non-ECC			
RAM - 32GB non-ECC			32GB non-ECC	32GB non-ECC	32GB non-ECC	32GB non-ECC		
RAM - 64GB non-ECC					64GB non-ECC	64GB non-ECC		
RAM - 32GB ECC							32GB ECC	
RAM - 64GB ECC							64GB ECC	64GB ECC
RAM - 128GB ECC							128GB ECC	128GB ECC
RAM - 256GB ECC							256GB ECC	256GB ECC
Flash Drive - 64GB								
Flash Drive - 128GB								
Flash Drive - 256GB								
Flash Drive - 512GB								
Hard Drive - 1TB SATA 6.0GB/s non-OPAL			1TB SATA 7200RPM non-OPAL		1TB SATA 7200RPM non-OPAL	1TB SATA 7200RPM non-OPAL		
Hard Drive - 2TB SATA 6.0GB/s non-OPAL					2TB SATA 7200RPM non-OPAL	2TB SATA 7200RPM non-OPAL	2TB SATA 7200RPM non-OPAL	2TB SATA 7200RPM non-OPAL
Solid State Drive - 128GB PCIe non-OPAL			128GB PCIe non-OPAL		128GB PCIe non-OPAL			
Solid State Drive - 256GB SATA non-OPAL			256GB SATA non-OPAL		256GB SATA non-OPAL			
Solid State Drive - 256GB PCIe non-OPAL			256GB PCIe non-OPAL	256GB PCIe non-OPAL	256GB PCIe non-OPAL	256GB PCIe non-OPAL		
Solid State Drive - 512GB SATA non-OPAL			512GB SATA non-OPAL	512GB SATA non-OPAL	512GB SATA non-OPAL	512GB SATA non-OPAL		
Solid State Drive - 512GB PCIe non-OPAL			512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	512GB PCIe non-OPAL	
Solid State Drive - 1TB SATA non-OPAL			1TB SATA non-OPAL	1TB SATA non-OPAL	1TB SATA non-OPAL	1TB SATA non-OPAL	1TB SATA non-OPAL	
Solid State Drive - 1TB PCIe non-OPAL			1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL	1TB PCIe non-OPAL
Solid State Drive - 2TB SATA non-OPAL							2TB SATA non-OPAL	2TB SATA non-OPAL
Solid State Drive - 2TB PCIe non-OPAL							2TB PCIe non-OPAL	2TB PCIe non-OPAL
Removable Storage - 8x DVD+/-RW			8x DVD+/-RW		8x DVD+/-RW	8x DVD+/-RW	8x DVD+/-RW	8x DVD+/-RW
Graphics - AMD or nVidia w/2GB Discrete					nVidia® GeForce™ GT730 w/2GB		nVidia® Quadro™ P1000 w/4GB	
Graphics - AMD or nVidia w/4GB Discrete								
Graphics - AMD or nVidia w/6GB Discrete					nVidia® GeForce™ GTX 1060 w/6GB	nVidia® GeForce™ GTX 1060 w/6GB		
Graphics - AMD or nVidia w/8GB Discrete							nVidia® Quadro™ RTX 4000 w/8GB	nVidia® Quadro™ RTX 4000 w/8GB
Webcam - IR								
Wireless Interface - 802.11 a/b/g/n/AC			Intel® 9560 AC w/Bluetooth 5	Intel® 9560 AC w/Bluetooth 5	Intel® 9560 AC w/Bluetooth 5	Intel® 9560 AC w/Bluetooth 5	Intel® 9560 AC w/Bluetooth 5	Intel® 9560 AC w/Bluetooth 5
Bluetooth Interface - 4								
Security - 4yr. Absolute DDS Premium			4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium	4 Yr. Absolute DDS Premium
Security - 5yr. Absolute DDS Premium			5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium	5 Yr. Absolute DDS Premium
Security - 6yr. Absolute DDS Premium								
Warranty - Additional 1 Year			Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive	Additional 1 Yr. NBD Onsite Service Keep Your Hard Drive
Warranty - Additional 2 Years			Additional 2 Yrs. NBD Onsite Service Keep Your Hard Drive	Additional 2 Yrs. NBD Onsite Service Keep Your Hard Drive	Additional 2 Yrs. NBD Onsite Service Keep Your Hard Drive	Additional 2 Yrs. NBD Onsite Service Keep Your Hard Drive	Additional 2 Yrs. NBD Onsite Service Keep Your Hard Drive	Additional 2 Yrs. NBD Onsite Service Keep Your Hard Drive
Warranty - Additional 3 Years								
ACCESSORY OPTIONS (ordered at initial purchase or at a later time)								
Video Adapter - DisplayPort to Dual DisplayPort			DisplayPort to Dual DisplayPort	DisplayPort to Dual DisplayPort	DisplayPort to Dual DisplayPort	DisplayPort to Dual DisplayPort	DisplayPort to Dual DisplayPort	DisplayPort to Dual DisplayPort
Video Adapter - DisplayPort to DVI			DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI	DisplayPort to DVI
Video Adapter - DisplayPort to HDMI			DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI	DisplayPort to HDMI
Video Adapter - DisplayPort to VGA			DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA	DisplayPort to VGA
Video Adapter - HDMI to VGA								
Video Adapter - HDMI to DisplayPort								
Video Adapter - MiniDisplayPort to DisplayPort								
Removable Storage - USB 8x DVD+/-RW			USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW	USB 8x DVD+/-RW
Lock Kit			Security Lock	Security Lock	Security Lock	Security Lock	Security Lock	Security Lock
Mounting Bracket								
Mounting Bracket								

OPTIONAL SERVICES - COMPUTERS

SERVICE OPTIONS (to be ordered at initial purchase)

Optional Service	Specification
Asset Tagging - 3RD PARTY	<p>Tasks to be provided by 3rd party vendor prior to delivery of equipment include the following:</p> <ol style="list-style-type: none"> 1) Affix asset tag to device as directed and provided by the department/County. 2) Enter asset tag into system BIOS as directed and provided by the department/County. 3) Provide a full inventory report of equipment asset tags, serial numbers, and other identifying information as requested by the department/County. 4) Coordinate and oversee all large quantity purchases to a central agency location.
Asset Tagging - MANUFACTURER	<p>Tasks to be provided by manufacturer prior to shipment of equipment include the following:</p> <ol style="list-style-type: none"> 1) Affix asset tag to device as directed and provided by the department/County. 2) Enter asset tag into system BIOS as directed and provided by the department/County. 3) Provide a full inventory report of equipment asset tags, serial numbers, and other identifying information as requested by the department/County. 4) Coordinate and oversee all large quantity purchases to a central agency location.
Imaging - 3RD PARTY	<p>Tasks to be provided by 3rd party prior to delivery of equipment include the following:</p> <ol style="list-style-type: none"> 1) Image/install pre-software installation services using a Golden (certified) image/pre-software as provided by the department/County. <ol style="list-style-type: none"> a) 3rd Party to provide department/County an upload link and/or repository for certified image/pre-software. b) 3rd Party to deliver 2 (two) devices after imaging to department/County for verification and acceptance, before proceeding with imaging remaining devices. 2) Coordinate and oversee all large quantity purchases to a central agency location.
Imaging - MANUFACTURER	<p>Tasks to be provided by manufacturer prior to shipment of equipment include the following:</p> <ol style="list-style-type: none"> 1) Image/install pre-software installation services using a Golden (certified) image/pre-software as provided by the department/County. <ol style="list-style-type: none"> a) Manufacturer to provide department/County an upload link and/or repository for certified image/pre-software. b) Manufacturer to deliver 2 (two) devices after imaging to department/County for verification and acceptance, before proceeding with imaging remaining devices. 2) Coordinate and oversee all large quantity purchases to a central agency location.
Delivery w/Unpacking - WEEKDAY	<p>General County weekday peak hours are 9am to 3:30pm. All delivery/drop times shall be dictated by ordering department. Tasks to include the following:</p> <ol style="list-style-type: none"> 1) Deliver and unpack devices (removing all packing materials) to regional locations as directed by the department/County. 2) Coordinate and oversee all large quantity purchases to a central agency location.
Delivery w/Unpacking - WEEKEND	<p>General County weekend peak hours are 9am to 3:30pm. All delivery/drop times shall be dictated by ordering department. Tasks to include the following:</p> <ol style="list-style-type: none"> 1) Deliver and unpack devices (removing all packing materials) to regional locations as directed by the department/County. 2) Coordinate and oversee all large quantity purchases to a central agency location.
Staggered Delivery - WEEKDAY	<p>General County weekday peak hours are 9am to 3:30pm. All delivery/drop times shall be dictated by ordering department. Tasks to include the following:</p> <ol style="list-style-type: none"> 1) Warehousing of devices up to 3 months as needed; starts from date goods are warehoused (not from the date of PO) VENDOR shall transfer all warranty and title/ownership for devices to the department/County of Los Angeles prior to delivery (F.O.B. Destination) to County. COUNTY takes title/ownership at F.O.B. Destination. 2) Deliver devices to regional locations as directed by the department/County. 3) Coordinate and oversee all large quantity purchases to a central agency location.
Staggered Delivery - WEEKEND	<p>General County weekend peak hours are 9am to 3:30pm. All delivery/drop times shall be dictated by ordering department. Tasks to include the following:</p> <ol style="list-style-type: none"> 1) Warehousing of devices up to 3 months as needed; starts from date goods are warehoused (not from the date of PO) VENDOR shall transfer all warranty and title/ownership for devices to the department/County of Los Angeles prior to delivery (F.O.B. Destination) to County. COUNTY takes title/ownership at F.O.B. Destination. 2) Deliver devices to regional locations as directed by the department/County. 3) Coordinate and oversee all large quantity purchases to a central agency location.

OPTIONAL SERVICES - COMPUTERS

SERVICE OPTIONS (to be ordered at initial purchase)

Optional Service	Specification
Staggered Delivery w/Unpacking - WEEKDAY	<p>General County weekday peak hours are 9am to 3:30pm. All delivery/drop times shall be dictated by ordering department. Tasks to include the following:</p> <ol style="list-style-type: none"> 1) Warehousing of devices up to 3 months as needed; starts from date goods are warehoused (not from the date of PO) VENDOR shall transfer all warranty and title/ownership for devices to the department/County of Los Angeles prior to delivery (F.O.B. Destination) to County. COUNTY takes title/ownership at F.O.B. Destination. 2) Deliver and unpack devices (removing all packing materials) to regional locations as directed by the department/County. 3) Coordinate and oversee all large quantity purchases to a central agency location.
Staggered Delivery w/Unpacking - WEEKEND	<p>General County weekend peak hours are 9am to 3:30pm. All delivery/drop times shall be dictated by ordering department. Tasks to include the following:</p> <ol style="list-style-type: none"> 1) Warehousing of devices up to 3 months as needed; starts from date goods are warehoused (not from the date of PO) VENDOR shall transfer all warranty and title/ownership for devices to the department/County of Los Angeles prior to delivery (F.O.B. Destination) to County. COUNTY takes title/ownership at F.O.B. Destination. 2) Deliver and unpack devices (removing all packing materials) to regional locations as directed by the department/County. 3) Coordinate and oversee all large quantity purchases to a central agency location.
Install & Relocate - WEEKDAY	<p>General County weekday peak hours are 9am to 3:30pm. All service times shall be dictated by ordering department. Tasks to include the following:</p> <ol style="list-style-type: none"> 1) Deliver device to final destination within one (1) facility, as directed by the ordering department and unpack, removing all packing material. 2) Disconnect and remove existing equipment to a temporary on-site location as directed by department. 3) Install device including connection of CPU and peripherals, including but not limited to, system cables, security cables/locking mechanism, mouse, and keyboard or as directed by department. 4) Boot up system and report any Operating System issues to department. 5) Coordinate and oversee all large quantity purchases to a central agency location.
Install & Relocate - WEEKEND	<p>General County weekend peak hours are 9am to 3:30pm. All service times shall be dictated by ordering department. Tasks to include the following:</p> <ol style="list-style-type: none"> 1) Deliver device to final destination within one (1) facility, as directed by the ordering department and unpack, removing all packing material. 2) Disconnect and remove existing equipment to a temporary on-site location as directed by department. 3) Install device including connection of CPU and peripherals, including but not limited to, system cables, security cables/locking mechanism, mouse, and keyboard or as directed by department. 4) Boot up system and report any Operating System issues to department. 5) Coordinate and oversee all large quantity purchases to a central agency location.

OPTIONAL SERVICES - COMPUTERS

SERVICE OPTIONS (to be ordered at initial purchase)

Optional Service	Specification
Install & Relocate w/Data Sanitization - WEEKDAY	<p>General County weekday peak hours are 9am to 3:30pm. All service times shall be dictated by ordering department. Tasks to include the following:</p> <ol style="list-style-type: none"> 1) Deliver device to final destination within one (1) facility, as directed by the ordering department and unpack, removing all packing material. 2) Disconnect and remove existing equipment to a temporary on-site location as directed by department. <ol style="list-style-type: none"> A) Sanitize drive(s) according to DoD 5220.22-M standard or NIST SP800-88Rev1 standard and provide the department/County with a certificate certifying completion. <ol style="list-style-type: none"> i) Details for Certificate of Sanitization to be determined department/County and may include the following: Dept./County, Asset # of main device, media type, drive mfg., drive model, drive serial #, sanitization type, sanitization method(s), tool(s) used, name of person performing sanitization, position/title of person performing sanitization, date of sanitization, signature of person performing sanitization, verification method of sanitization, name of person performing verification, position/title of person performing verification, date of verification, signature of person performing verification. 3) Install device including connection of CPU and peripherals, including but not limited to, system cables, security cables/locking mechanism, mouse, and keyboard or as directed by department. 4) Boot up system and report any Operating System issues to department. 5) Coordinate and oversee all large quantity purchases to a central agency location.
Install & Relocate w/Data Sanitization - WEEKEND	<p>General County weekend peak hours are 9am to 3:30pm. All service times shall be dictated by ordering department. Tasks to include the following:</p> <ol style="list-style-type: none"> 1) Deliver device to final destination within one (1) facility, as directed by the ordering department and unpack, removing all packing material. 2) Disconnect and remove existing equipment to a temporary on-site location as directed by department. <ol style="list-style-type: none"> A) Sanitize drive(s) according to DoD 5220.22-M standard or NIST SP800-88Rev1 standard and provide the department/County with a certificate certifying completion. <ol style="list-style-type: none"> i) Details for Certificate of Sanitization to be determined department/County and may include the following: Dept./County, Asset # of main device, media type, drive mfg., drive model, drive serial #, sanitization type, sanitization method(s), tool(s) used, name of person performing sanitization, position/title of person performing sanitization, date of sanitization, signature of person performing sanitization, verification method of sanitization, name of person performing verification, position/title of person performing verification, date of verification, signature of person performing verification. 3) Install device including connection of CPU and peripherals, including but not limited to, system cables, security cables/locking mechanism, mouse, and keyboard or as directed by department. 4) Boot up system and report any Operating System issues to department. 5) Coordinate and oversee all large quantity purchases to a central agency location.