



711.07867 REV 10 – Rio/Continuum Camera with In-Situ PC System

Manufacturer: Dell
Model: PowerEdge T640

Base Unit:	PowerEdge T640 tower server (210-AMBC, 329-BEPB, 461-AADZ, 321-BHDX, 384-BBSO, 325-BCON, 350-BBBW, 350-BBLM, 384-BBBL, 770-BBCR, 800-BBDM)
Processor:	(2) Intel Xeon Gold 6226, 12 core, 2.7 GHz up to 3.7 GHz Turbo, 19.25 MB L3, 10.4 GT/s, 125 W (338-BTSS, 379-BDCO, 412-AAJW)
Memory:	256 GB total; (8) 32 GB RDIMMs, 3200 MT/s, performance optimized (370-AEVS, 370-AEVR, 370-AAIP)
Video Card:	(1) nVidia Quadro P1000, 4 GB GDDR5, 640 CUDA cores, PCIe v3 x16, 47 W max power consumption, with (4) mDP v1.4 connectors (PNY VCQP1000V2-PB)
Monitor:	(1) Dell 32" Widescreen flat panel display, U3219Q, 3840x2160, HDMI/DP connections, 2m DP-DP cable, 3 years Advanced Exchange Service (210-AQZZ, 827-0203, 827-0214)
Hard Drives: see Note 3	(1) 1.2 TB, 2.5" SAS, 10,000 rpm, 12 Gb/s (400-AUTI) (8) 1000 GB, 2.5" Serial-ATA Solid State (Samsung 870 EVO MZ-77E1T0E) (8) 2.5 SFF SAS SATA Drive Tray Caddy for Dell (Wali Electric WL-2.5-1-1)
HD RAID:	RAID 0 (from the 8 x 1000 Gb SSD's), (1) 7.4 TB logical drive for Capture Data
HD Controller:	(1) PERC H750 (Broadcom ROC, SAS3916 chipset), 8 ports, 12 Gb/s SAS, 6 Gb/s SATA, 8 GB DDR4 2666 MT/s non-volatile cache, PCIe v3 x8 (405-ABCO)
Optical Drive:	(1) DVD+/-RW, SATA, 8x (429-AAQL)
Power Supply:	(1) 1100 W Hot Plug (450-ADWL, 450-AALV)
Operating System:	Windows Server 2016 Standard Edition, 64-Bit, English see Note 2
Energy Efficiency:	Energy Star (387-BBMK)
Network Adapters:	(1) Broadcom 57416 Dual Port, 10/1GbE, BASE-T, PCIe v3 x8 (540-BBUI) (1) On-Board LOM, 10GbE, Dual Ports (542-BBCT)
Keyboard:	(1) Logitech Illuminated Keyboard K740, wired USB (920-000914)
Mouse:	(1) Logitech Corded Mouse M500, wired USB (910-001204)
Expansion Slots:	1 PCIe x16, Gen 3, can accommodate double width card, CPU 1 2 PCIe x8, Gen 3, wired as x4, CPU 1 3 PCIe x16, Gen 3, CPU 1 (occupied by Video card) 4 PCIe x8, Gen 3, CPU 2 (occupied by Network card) 5 PCIe x8, Gen 3, wired as x4, CPU 2 6 PCIe x16, Gen 3, CPU 2 7 PCIe x8, Gen 3, CPU 2 8 PCIe x16, Gen 3, CPU 2
Tower I/O Ports:	Front: (1) USB 3.0, (1) USB 2.0, (1) iDRAC Direct (Micro-AB USB) Rear: (4) USB 3.0, (2) USB 2.0, (1) VGA, (2) NIC, (1) iDRAC9, (1) Serial
Service:	3 Year ProSupport and NBD On-site Service (709-BBFM, 865-BBMY)
Documentation:	Electronic System Documentation & OpenManage DVD kit (430-XYLY)
Embedded Systems Management:	iDRAC9 Express (385-BBKS, 379-BCQY, 379-BCQW, 379-BCSG)

Notes:

- Items in **blue text** are NOT part of the PowerEdge configuration that can be ordered if this system is purchased directly from Dell.
- GMS software version 3.2.2 (or newer) is required for support of acquisition equipment in Windows Server 2016. Support for Server 2019 has not yet been confirmed. **If the system is purchased directly from Dell, Server 2019 Standard must also include the OS downgrade options in order to perform a Server 2016 install and complete GMS software configuration at the customer site.**
- This system is purchased from Dell in a "no RAID" configuration. Since the PERC PCIe card is included, the operating system should be installed on Disk 0, as a single disk RAID 0 virtual drive (1.2 TB). Before running the GMS software, the remaining eight (8) SSD's must be configured as a separate RAID 0 virtual drive (7.4 TB).
- If the specific hardware device configuration requires more expansion slots than are available on the motherboard, an Expansion Enclosure System will also need to be purchased. Reference Gatan p/n# 101780 (StarTech #PEX2PCIE4L)
- If the monitor, keyboard and mouse need to be located farther from the computer than would be permitted by the standard 2m cabling, an optional 20m Ultra HD monitor cable bundle may be purchased (**included if the computer is purchased from Gatan**). Reference Gatan p/n# 711.27200.
- When purchased from Gatan, this system is also provided with (1) USB 3 to RJ45 Gigabit Ethernet adapter. Reference Gatan p/n# 106582

Important: Check with the Software group and Marketing before changing this specification.