FRED Forensic Workstations

	FRED	FRED DX	FRED SR
Processor	3.5 GHz, Intel i7-7800X, 6 Core, 8.25 MB Cache *Optional CPUS available:* *i7 CPU options: 8 cores* *i9 CPU options: 10, 12, 14, 16, and 18 cores available*	Intel Silver Series 4110 CPU, 8 core, 2.1 GHz, 11MB Cache *Optional CPUs available:* *Silver series - 4, 10, and 12 cores* *Gold series - 4, 8, 16, 18, and 20 cores* *Platinum series - 24 and 28 cores*	
Memory	32 GB PC4-21300 DDR4 2666 MHz - configurable up to 128 GB	32 GB ECC Memory PC4 21300 DDR4-2666 MHz *configurable up to 768 GB*	
Software	Microsoft Windows 10 Professional, 64-bit OpenSUSE Linux 64-bit Symantec Ghost		
Graphics & Video Support	Nvidia GTX 1050Ti, 4GB, 128-bit GDDR5, 768 CUDA cores *upgrades available to NVIDIA RTX 2080 or RTX 2080Ti GPUs*		
Storage	512 GB NVMe PCIe SSD (OS) 512 GB SSD SATA III (Database/Cache/Temp) 2 TB SATA III 720 RPM HotSwap (Case/Data) *additional drive / storage options available*		
Extra Storage Slots	**FRED** 4 HotSwap Drive Bays 2.5"/3.5" SATA III (USB 3.1 connected) 2 HotSwap Drive Bay 2.5"/3.5" SATA III (SATA connected) 1 NVMe SSD **FRED 1R** 3 HotSwap Drive Bays 2.5"/3.5" SATA III (USB 3.1 connected) 2 HotSwap Drive Bay 2.5"/3.5" SATA III (SATA connected) 1 NVMe SSD **FRED 2R** 4 x 2.5" HotSwap Drive Bay SATA III (SATA connected) 1 NVMe SSD	**FRED DX** 4 HotSwap Drive Bays 2.5"/3.5" SATA III (USB 3.1 connected) 2 HotSwap Drive Bay 2.5"/3.5" SATA III (SATA connected) **FRED DX 1R** 3 HotSwap Drive Bays 2.5"/3.5" SATA III (USB 3.1 connected) 2 HotSwap Drive Bay 2.5"/3.5" SATA III (SATA connected) **FRED DX 2R** 4 x 2.5" HotSwap Drive Bay SATA III (SATA connected)	3 HotSwap Drive Bays 2.5"/3.5" SATA III (USB 3.1 connected) 2 HotSwap Drive Bay 2.5"/3.5" SATA III (SATA connected)
Storage Controller	Intel 6 Gb/s SATA (8) Intel M.2 x 4 PCIe Socket (2)	Intel 6 Gb/s SATA (8) Intel M.2 x 4 PCIe Socket (1) ASMedia 6 Gb/s SATA (2)	Intel 6 Gb/s SATA (8) Intel M.2 x 4 PCIe Socket (1) ASMedia 6 Gb/s SATA (2)
RAID Controller	12 Channel PCIe 12 Gb/s SAS/SATA (with 1-RAID and 2-RAID FRED configurations only)		16 Channel PCIe 12 Gb/s SAS/SATA
RAID Capacity	1R, 5 Drive RAID Chassis: Up to 50 TB using 10 TB hard drives 2R, Dual 5 Drive RAID Chassis: Up to 100 TB using 10 TB hard drives Additional RAID configurations and drive options available		Three (3) x Five (5) bay RAID chassis (15 drives total). Five 2 TB (8 TB RAID5) is baseline configuration. RAID capacity up to 140 TB using 10 TB drives. Additional RAID configurations and drive options available.
Network Performance	Dual Intel 10/100/1000 Mbps gigabite Ethernet adapters Single or dual port 10 Gb Ethernet adapters available		
Drive Bays	Native SATA, shock-mounted, removable FRED and FRED DX (2) FRED 1R and FRED DX 1R (2) FRED 2R and FRED DX 2R (4) Hot-swap, USB 3.1 connected SATA III, shock-mounted, read only or read write selectable, removable FRED and FRED DX (4) FRED 1R and FRED DX 1R (3) FRED 2R and FRED DX 2R (1)		Native SATA, shock-mounted, removable (2) Hot-swap, USB 3.1 connected SATA III, shock-mounted, read only or read write selectable, removable (3)
Forensic Imaging & Write Blocking	UltraBay 4d hardware write blocked imaging of SATA, SAS, USB 3, IDE, Firewire and PCIe SSD devices Single or multiple (concurrent) forensic imaging of storage devices Convenient front panel write blocked or read/write switch for general drive management UltraBay 4d touch-screen user interface. Displays device details, display and manage LUNs and HDD protected regions. Examine file partitions. FREDs ship with Tableau Imager (TIM) pre-installed In addition to the the UltraBay 4d, all FRED USB 3.1 connected HotSwap Forensic Drive Trays are user switchable between read write and read only modes of operation, increasing the forensic imaging capacity of SATA drives (3.5"/2.5")		
Drive Cooling	Exclusive extendable / retractable imaging work shelf with active ventilation for suspect drive cooling		
Media Card Reader	UltraBlock Forensic Card Reader User selectable write blocked or read/write		
External Connections & Expansion	USB 3.1 Gen 2 (1) USB 3.1 Gen 2 Type C (1) USB 3.1 Gen 1 ports (10) USB 3.1 Gen 1 Type C (1) USB 2.0 (4)	USB 3.1 (1) USB 3.1 Type C (1) USB 3.0 (9) USB 2.0 (2)	USB 3.1 (9) USB 3.1 Type C (2) USB 2.0 (4)
Display, Keyboard & Mouse	Optional 22" ergonomic LED monitor 1920 x 1080 full HD resolution Adjustable height, tilt and swivel. Built in speakers Microsoft wireless desktop keyboard and mouse		
Audio	Realtek ALC2250 8-channel high definition audio CODEC featuring Crystal Sound 2	Realtek ALC1150 8-channel high definition audio CODEC	
DVD/CD/Blu-Ray	BD-R/BD-RE/DVD±RW/CD±Rw BluRay burner, dual-layer combo drive		
Electrical Operating Requirements	1200 Watt modular power supply Line voltage: 100-240 VAC Frequency: 50-60 Hz		
Accessories	Forensic toolbox including adapters and cables: (SAS, SATA, IDE, microSATA, SATA LIF, MacBook Air Blade, PCIe SSD m.2 NVMe, PCIe SSD MacBook Pro (2013 and newer) and server class PCIe SSD Precision electronics tool kit with assorted bits for opening enclosures		
Warranty & Technical Support	Lifetime technical support (email, phone and via website). Standard warranty 36 months from date of purchase. Extended warranty plans available		
Configure to Order	Configure your system with available options, obtain pricing and place an order by visiting the FRED and FRED DX product pages		