



FRED DX 1R with HotSwap Forensic Drive Trays

Our Mission

At Digital Intelligence, we combine the knowledge gained from years of providing digital forensics and eDiscovery services with a deep understanding of digital technology to build and deliver solutions that *Give Voice to Digital Evidence™*.



USB 3.0 Hub (top), Forensic Card Reader (bottom)

FRED DX™

DUAL XEON FORENSIC RECOVERY OF EVIDENCE DEVICE

Power to Perform - FRED DX™ Dual Xeon Forensic Workstation

Digital Intelligence FRED DX Dual Xeon Systems are purpose built forensic systems using the latest Intel® Silver, Gold, and Platinum series CPUs. Modern forensic software applications that take advantage of multi-core / multi-threading processors will scream on the new FRED DX. Combined with exclusive, only available in FRED features and functions, FRED DX is the best forensic workstation money can buy. If your forensic software seeks multi-threads to run effectively, get a FRED DX.

FRED DX - A Premium, Purpose Built Forensic Workstation

FRED DX is a great system for all phases of forensic casework: evidence acquisition, analysis, reporting, and archival. The baseline CPU is an Intel® Silver series 4110 (8 core) 2.1 GHz processor. Need more power? Eleven different CPU upgrade options are available (Silver, Gold, and Platinum series, up to 28 cores per CPU). Memory is expandable up to 768 GB of PC4 21300 2666 MHz DDR4 RAM.

Standard FRED DX (non-RAID) systems support up to eight (7) storage drives. The OS resides on a very fast 512 GB NVMe drive. Each FRED DX includes one SATA 512 GB SSD (database, cache, and temp) and one 2 TB 7200 rpm (case/data) drive. Up to four additional SATA drives can be installed in the four HotSwap drive bays. Hard drive options are available. FREDs can be configured with one ("1R") or two ("2R") five-drive RAID chassis.

Unmatched Forensic Imaging: UltraBay 4d™ and Forensic Drive Trays

New for 2019, FRED systems gain additional forensic imaging capability through the innovative FRED HotSwap Forensic Drive Trays. Integrated using USB 3.1 technology, FRED Forensic Drive Trays support imaging of SATA drives in a forensically sound manner. These trays are user-selectable Read/Write or Read Only, doubling their system utility. Using modern forensic imaging software, speeds in excess of 24 GB/min have been attained.

The venerable UltraBay 4d is a proven workhorse used to image SATA, SAS, USB, Fire-Wire, IDE, and PCIe storage devices. The touch-screen UI displays device information independent of the OS. Using Tableau Imager, the UltraBay 4d supports simultaneous or sequential drive imaging when multiple devices are connected. For general purpose drive work, a front panel switch securely manages switching to and from read only to read-write mode.

Flexibility to Add Features with New Drive Tray Ecosystem

Have you ever needed additional USB connections or forensic imaging capability for SD cards? With a FRED, adding or changing connections is as simple as swapping a feature focused drive tray. This innovation allows you to change your FRED configuration on the fly as the case work calls for it. USB 3.0 and SD Forensic Card Reader trays are available today. Contact Digital Intelligence for more information about the FRED drive tray ecosystem.

FEATURE	FRED-DX™ - Forensic Recovery of Evidence Device Technical Specifications
Processor	Quantity 2 - Intel® Xeon® Silver series 4110 CPUs, 8 core, 2.1 GHz, 11 MB cache. Available CPU options: Silver series: 4, 10, and 12 cores Gold series: 4, 8, 14, 18, and 20 cores Platinum series: 24 and 28 cores Note: FRED DX systems include two (2) Xeon processors, effectively doubling the core counts shown above
Memory	32 GB ECC Memory PC4 21300 DDR4-2666 MHz (Configurable options: 64, 128, 256, 512, and 786 GB)
Chipset	Intel® C621 chipset
Software	Microsoft Windows® 10 Professional 64-bit, openSUSE Linux 64-bit, Symantec® Ghost, CD/DVD authoring software
Graphics	NVIDIA® GeForce™ GTX 1050Ti 4GB 128-bit DDR5, 768 CUDA cores. Upgrades available to NVIDIA RTX 2080 or RTX 2080 Ti
Hard-drive Storage	Up to seven (7) storage drives in non-RAID FRED-DX systems: Operating System - 512 M.2 NVMe SSD Database/Cache/Temp - 512 GB SSD SATA III hard drive Case/DATA - 2 TB 7200 RPM SATA III hard drive Optional: Four (4) SATA drives in HotSwap drive bays. Many drive capacities/types are available
Drive Bays	1 HotSwap SATA connected shock-mounted, keyless removable 3 HotSwap USB 3.1 connected, universal (SATA/IDE compatible), shock-mounted, keyless removable Optional IDE tray; Hard-drive options: rotational or SSD in various capacities
DVD/CD/Blu-ray	BD-R/BD-RE/DVD±RW/CD±RW Blu-ray burner, dual-layer combo drive
Forensic Imaging / Write Blocking	DI UltraBay 4d™ forensic bridge - write blocks SATA, SAS, USB 3.0/2.0/1.1, IDE, FireWire and PCIe SSD storage devices Touch-screen user interface supports on-screen access of: <ul style="list-style-type: none"> • Connected storage device information • LUN selection • Management of HDD protected regions • File system and partitions (independent of the FRED OS) Supports simultaneous or sequential drive imaging of multiple storage devices, supports hot-swap device connection, available exclusively from DI on FRED systems
Hard Drive Cooler Shelf	DI exclusive extendable/retractable imaging work shelf with integrated ventilation for drive cooling
Media Card Reader	DI Forensic Media Card Reader - user selectable read/write or read only access
Networking	Dual Intel 10/100/1000 Mbps gigabit Ethernet adapters (1 or 2 port Intel 10 Gb Ethernet adapter options available)
Connections and Expansion	2 USB 2.0 ports, back access 9 USB 3.0 ports - 3 front access , 6 back access 1 USB 3.1 port, back access 1 USB 3.1 Type C, back access 1 write blocked SATA port, front access, read/write switchable through the UltraBay 4d 1 write blocked SAS or SATA port, front access, read/write switchable through the UltraBay 4d 1 write blocked PCIe port, front access, read/write switchable through the UltraBay 4d 1 write blocked USB 3.0/2.0/1.1 port, front access, read/write switchable through the UltraBay 4d 1 write blocked IDE port, front access, read/write switchable through the UltraBay 4d 1 write blocked FireWire 1394 A/B port, front access, read/write switchable through the UltraBay 4d
Drive Tray Ecosystem	3-port, US 3.0 HUB; Read Write; Suitable for license dongles or general purpose USB devices Multi-port Forensic Card Reader; User Selectable Read/Write and Read Only
Storage Controller	8 ports Intel® 6 Gb/s SATA controller, 2 x Intel® SATA Express port, 1 x Intel® M.2 x 4 PCIe socket, 1 x ASMedia® SATA Express port
Audio	Realtek® ALC1150 8-channel high definition audio CODEC
Keyboard / Mouse	Microsoft wireless desktop keyboard and mouse
Display	Option: 22" (21.5" Vis) ergonomic LED monitor, 1920 x 1080 full HD resolution, adjustable height, tilt and swivel, built-in speakers
Power	1100 watt modular power supply
Warranty and Support	36 months from date of purchase, extended warranty options available, lifetime technical support
Dimensions and Weight	24 High x 8" Wide x 25" Deep, 80 lbs
Accessory Toolbox	Adapters and cables - SAS, SATA, IDE, microSATA, PCIe SSD m.2 NVMe, PCIe SSD MacBook Pro (2013 and newer), server class PCIe SSD, SATA LIF, and MacBook Air Blade SSD Security screwdriver set: Assorted security bits for opening computer enclosures Restore DVD containing Windows 10 Pro & Linux OS images. Original OEM SW/HW installation manuals and disks

OPTION	FRED DX™ - Optional Feature Technical Specifications
FRED Tape Option	LTO Ultrium 7 Tape Drive (6TB Uncompressed / 15TB Compressed)
FRED 1R and 2R RAID Options	16 channel PCIe 12 Gb/s SAS/SATA RAID Controller 5 bay RAID chassis (Qty 1 - 1R, Qty 2 - 2R) 1R - Baseline 10 TB (8 TB RAID5); Maximum RAID capacity is 50 TB (40 TB RAID5) 2R - Baseline 20 TB (16 TB RAID5); Maximum RAID capacity is 100 TB (80 TB RAID5) Additional hard drive options available. Note that 1R and 2R RAID configurations will reduce the number of available drive bays