

FRED 1R with HotSwap Forensic Drive Trays

FRED PCIe NVMe RAID adapter



PCIe RAID adapter (cover on)



PCIe RAID adapter (cover off) with 6 NVMe solid state drives

FRED™

FORENSIC RECOVERY OF EVIDENCE DEVICE

Sets the Bar for Digital Forensic Workstations

Digital Intelligence FRED systems are designed, built, and optimized to support the demands of digital forensics. Regardless of forensic task - acquisition, analysis, reporting, or archiving - FRED systems are unmatched in features, capabilities, and performance.

FRED Forensic Workstations - Powered by Intel

With over 25 years of experience serving the digital forensic community, Digital Intelligence has developed a deep understanding of examiner needs for building a high-quality forensic workstation. The FRED workstation has been updated to deliver enhanced processing power, featuring a potent CPU. The standard base FRED system includes an Intel® Core™ Ultra 9 285K 24-core processor (8 performance / 16 efficiency) and 64 GB of PC5-41600 DDR5 5200 MHz RAM. With a variety of processor, RAM, and GPU options available, FREDs offer flexibility and custom-built performance.

HotSwap and RAID Storage Options for Effective Processing

Non-RAID FREDs offer up to ten drive locations: four internal M.2 NVMe, two SATA III-connected HotSwap, and four USB 3.2-connected SATA HotSwap. Exclusive to FRED, the USB 3.2-connected drives are switchable read-only / read/write for additional forensic imaging capability.

FRED single (1R) and dual (2R) RAID systems provide extensive local, fault-tolerant data storage for security and application processing speed. Built with ultra-high speed Areca hardware RAID controllers, all FRED RAID systems deliver optimum performance. RAID options now include internal PCIe-connected M.2 NVMe cards (supporting 4 or 6 drives) as well as externally accessible drive chassis with 5 or 10 drives.

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

The UltraBay 4d is the forensic imaging focal point on FRED. Proven, efficient, and recognized by all leading forensic imaging software, the UltraBay 4d supports fast forensic acquisition of SATA, SAS, USB, PCIe, and FireWire devices. Its unique touchscreen allows for independent device information access [or independent access of device information], bypassing the OS. Multiple devices can be imaged simultaneously, and it can be safely switched to read-write mode for general purpose drive maintenance.

Need more write-blocking capacity? Switch a USB 3.2-connected drive tray to read-only, insert a drive, and start imaging. This capability is available only on a FRED.

Change Features On the Fly with the Drive Tray Ecosystem

FRED's USB 3.2-connected HotSwap drive trays support interchanging features by simply swapping out a drive tray. All FRED systems ship with the USB 3.2-integrated SATA tray (read/write or write-blocked switchable). See the tech specs section for additional tray information.

FEATURE	FRED™ - Forensic Recovery of Evidence Device Technical Specifications
Processors	Standard: Intel® Core™ Ultra 9 285K, 24 cores (8 P/16 E), 24 threads, 3.2/5.7 GHz, 36 MB Smart Cache. Contact us for additional CPU options.
Memory	64 GB PC5-41600 DDR5 5200 MHz standard (2 x 32 GB). Contact us for memory upgrade options.
Chipset	Intel Z890
Software	Microsoft Windows® 11 Professional 64-bit, Ubuntu Linux 64-bit, Symantec® Ghost
Graphics	NVIDIA® GeForce™ RTX 3050 8 GB 128-bit GDDR6, 2560 CUDA cores. GPU upgrades available.
Hard Drive Storage	Up to ten (10) storage drives in non-RAID FRED systems, including four (4) internal M.2 NVMe storage locations: Operating System - 1 TB M.2 NVMe PCIe SSD Database/Cache/Temp - 1 TB M.2 NVMe PCIe SSD Case/DATA - 4 TB 7200 RPM SATA III HDD Extra drive slots: One (1) SATA-connected HotSwap, four (4) USB 3.2-connected SATA HotSwap drive bays, two (2) M.2 NVMe. Many drive capacities/types are available.
Drive Bays	Two (2) native SATA, shock-mounted, keyless, removable Four (4) HotSwap universal USB 3.2 (SATA/IDE compatible), shock-mounted, keyless, removable Hard drive options: rotational or SSD in various capacities
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 Touchscreen user interface supports on-screen access of: • 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 HotSwap 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	One (1) Marvell® AQtion 10 GbE port, one (1) Intel 2.5 GbE port; WiFi 7 (802.11be) / Bluetooth® v5.4
Connections & Expansion	9 USB 3.2 Gen 2 (10 Gbps) Type-A ports - 2 front access / 7 rear access 3 USB 3.2 Gen 2 (10 Gbps) Type-C ports - 2 front access / 1 rear access 2 Thunderbolt™ 5 (80/120 Gbps) USB Type-C ports - rear access 1 USB4 / Thunderbolt (40 Gbps) Type-C port - rear access 1 USB 2.0 Type-A port - rear access 1 write blocked SATA port - front access, read/write switchable through UltraBay 4d 1 write blocked SATA or SAS port - front access, read/write switchable through UltraBay 4d 1 write blocked PCIe port - front access, read/write switchable through UltraBay 4d 1 write blocked USB 3.0/2.0/1.1 port - front access, read/write switchable through UltraBay 4d 1 write blocked IDE port - front access, read/write switchable through UltraBay 4d 1 write blocked FireWire 1394b port - front access, read/write switchable through UltraBay 4d
Drive Tray Ecosystem	Five (5) unique USB 3.2-connected HotSwap forensic drive trays: 1) 3.5"/2.5" SATA drive tray (read/write or read-only switchable), 2) 3-port, USB 3.0 general purpose hub, 3) 5-port *Dongle Vault* for software license dongles, 4) M.2 NVMe PCIe SSD (write blocked switchable), and 5) Forensic Media Card Reader.
Storage Controller	1 x M.2 slot (Key M), PCIe 5.0 x4 mode (2242/2260/2280/22110); 3 x M.2 slots (Key M), PCIe 4.0 x4 mode (2242/2260/2280); 4 x SATA 6 Gb/s ports
Audio	Realtek® 7.1 surround sound high definition audio CODEC
Keyboard / Mouse	Microsoft wireless desktop keyboard and mouse
Display	Optional: 22" (21.5" Vis) ergonomic LED monitor, 1920 x 1080 full HD resolution, adjustable height, tilt and swivel, built-in speakers
Power	1200 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, SATA III to M.2 / mSATA, PCIe SSD M.2 NVMe, FireWire Security screwdriver set: Assorted security bits for opening computer enclosures Restore media containing Windows 11 Pro & Linux OS images. OEM SW/HW installation manuals and disks

OPTIONS	FRED - Forensic Recovery of Evidence Device Optional Feature Technical Specifications
RAID Controller	FRED (Intel) 1R: 12 channel PCIe 12 Gb/s SAS/SATA; FRED (Intel) 2R: 16 channel PCIe 12 Gb/s SAS/SATA
FRED RAID capacities	12 channel PCIe 12 Gb/s SAS/SATA RAID Controller; Capacity of RAID systems: A. "1R" has 5 drive single RAID for 110 TB raw, 88 TB RAID5 using 22 TB hard drives B. "2R" as 10 drives in dual RAID for 220 TB raw, 176 TB RAID 5 using 22 TB hard drives C. **PCIe-connected M.2 NVMe RAID internal adapter** with 4 or 6 NVMe solid state drives for 24 or 48 TB raw using 8 TB drives Additional RAID configurations and drive options are available.

Digital Intelligence®

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