



Front view. Handle shown in downward position.



Front/right side view. Handle shown in upward position.

# μFRED™

## MICRO FORENSIC RECOVERY OF EVIDENCE DEVICE

### Digital Intelligence μFRED™: Compact. Portable. Powerful.

Re-engineered for 2024, μFRED delivers the power investigators need in a smaller, compact (17" x 9" x 11.5") form factor. Each μFRED is built with a powerful Intel® i9-14900K, 24 core (8P/16E) CPU, up to 6 GHz clockspeed, with 36 MB of Intel Smart Cache, and 64 GB of PC5-38400 DDR5 RAM, with options to expand RAM capacity to 96 GB. To maximize system performance and longevity, liquid cooling is now standard on all μFRED systems.

### DI UltraBay 4™ Hardware Write Blocking

Using modern forensic imaging software, the UltraBay 4™ acquires forensically sound images of IDE, SATA, SAS, PCIe (server class, PCIe M.2, and MacBook® mid 2013-2016) drives, as well as USB 3.0/2.0/1.1 and FireWire storage devices. Storage devices may be connected and removed from the UltraBay 4 without powering off the μFRED.

### Hard Drive Options for Any Forensic Use Case

μFRED supports up to seven (7) hard drives: Two (2) internal NVMe slots, four (4) SATA in 4 x 2.5" drive bay chassis, and one (1) HotSwap bay. Standard μFRED's ship configured with three (3) drives:

**Operating System:** One (1) 500 GB M.2 NVMe (internal)

**Temp/Cache:** 1 TB M.2 NVMe SSD (internal)

**Data:** 4 TB 7200 RPM SATA III (USB 3.2 connected HotSwap drive tray)

Four (4) additional drive slots provide flexible storage required for modern forensic imaging and analysis software. Drive options and upgrades are available.

### Change Features on the Fly with the Drive Tray Ecosystem

μFRED'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 connected SATA tray (read/write or write-blocked switchable). See the tech specs for additional tray information.

FEATURE	μFRED™ - Forensic Recovery of Evidence Device Technical Specifications
Processor	Intel® Core i9-14900K, 24 core (8 performance/16 efficiency), up to 6 GHz, 36 MB Intel® Smart Cache
Memory	64GB PC5-38400 DDR5 4800 MHz Memory (configurable up to 96 GB)
Chipset	Intel® Z790
Software	Microsoft Windows® 11 Pro 64-bit, openSUSE Linux 64-bit, Symantec® Ghost
Graphics	Intel® Integrated UHD graphics 770 controller
Hard Drive Storage	Two (2) internal NVMe slots: Slot 1: OS - 500 GB M.2 NVMe SSD Slot 2: 1 TB M.2 NVMe SSD 4 x 2.5" four (4) bay chassis: Bay 1: Database/Cache/Temp - 1 TB SSD SATA III Bays 2-4: Open HotSwap Bay: Case/DATA - 4 TB 7200 RPM SATA III Additional drive capacities / types are available.
Drive Bays	1 HotSwap USB 3.2 connected SATA, shock mounted, removable tray. User switchable between read/write and read only. Optional IDE tray for legacy drives is available.
Drive Bay Ecosystem	Standard with each μFRED: USB 3.2 connected 3.5"/2.5" SATA drive tray (read/write or read only switchable) Optional USB 3.2 connected drive bays: 1) 3-port, USB 3.0 general purpose hub, 2) 5-port <i>Dongle Vault</i> for software license dongles, 3) NVMe/M.2 PCIe SSD (write blocked switchable), and 4) Forensic Media Card Reader.
DVD/CD/Blu-ray	Optional external USB 3.0 Blu-ray burner is available.
Forensic Imaging /Write Blocking	DI UltraBay 4™ forensic bridge - write blocks SATA, SAS, USB 3.0/2.0/1.1, IDE, FireWire, and PCIe SSD storage devices Supports HotSwap device connection; UltraBay write-blocking products available exclusively with DI FRED systems.
Networking	1 Integrated 2.5 Gigabit LAN (10/100/1000/2500 Mb/s) 1 Gigabit LAN (10/100/1000 Mb/s) Intel® Wi-Fi 6E (802.11ax) + Bluetooth
External Ports and Connectors	1 USB 3.2 Gen 2x2 Type C 3 USB 3.2 Gen 2 Type C 7 USB 3.2 Gen 2 Type A 1 USB 2.0 Type A 1 write-blocked SATA port - front access on UltraBay 4 1 write-blocked SATA or SAS port - front access on UltraBay 4 1 write-blocked PCIe port - front access on UltraBay 4 1 write-blocked USB 3.0/2.0/1.1 port - front on UltraBay 4 1 write-blocked IDE port - front access on UltraBay 4 1 write-blocked FireWire 1394 A/B (400/800 MB/s) port - front access on UltraBay 4
Storage Controller	Intel® 6 Gb/s SATA controller, 2 x M.2 socket key M, type 2280 (PCIe Gen4 SSD, SATA&PCIe Gen4 SSD)
Adapters and Accessories	SATA, SAS, IDE, FireWire, USB, and PCIe power / signal cables. PCIe SSD m.2 NVMe, PCIe MacBook Pro (2013 and newer), PCIe server class SSD, and FireWire adapters.
Audio	7.1 channel HD audio (Realtek® ALC897 audio CODEC)
Keyboard / Mouse	Optional Microsoft wireless desktop keyboard and mouse combination available.
Display	Optional 22" (21.5" Vis) ergonomic LED monitor, 1920 x 1080 full HD resolution, height adjust, tilt, and swivel functions with built-in speakers.
Power	650 watt ATX modular power supply
Warranty and Support	Hardware warranty is 36 months from date of purchase. Extended warranty options available. Lifetime technical support.
Dimensions and Weight	11.5" High x 9" Wide x 17" Deep, 32 lbs