

# μFRED™

MICRO FORENSIC RECOVERY OF EVIDENCE DEVICE

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

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® Core Ultra 9 285K, 24-core (8P/16E) CPU, up to 5.7 GHz clockspeed, with 36 MB of Intel Smart Cache, and 32 GB of PC5-41600 DDR5 5200 MHz memory, with options to expand RAM capacity to 128 GB. Built-in liquid cooling ensures optimal performance and the lasting reliability needed for today's forensic investigations.

## DI UltraBay 4™ Hardware Write Blocking

Using modern forensic imaging software, the UltraBay 4™ acquires forensically sound images of SATA, SAS, USB 3.0/2.0/1.1, and PCIe drives, as well as IDE 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 eight (8) hard drives: Two (2) internal NVMe slots, one (1) 2.5" SATA III x four (4) drive bay chassis, and two (2) HotSwap USB 3.2-connected SATA bays. Standard μFRED's ship configured with three (3) drives:

Slot 1 (Operating System): One (1) 1 TB M.2 NVMe (internal)

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

HotSwap Bay 1 (Casework/Data): One (1) 4 TB 7200 RPM SATA III HDD

Five (5) empty drive slots provide the flexible storage required for modern forensic imaging and analysis software. Additional drive options and upgrades are available for a fully customizable system.

## 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.



Front view. Handle shown in downward position.



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

FEATURE	μFRED™ - Forensic Recovery of Evidence Device Technical Specifications
Processor	Intel® Core™ Ultra 9 285K, 24 core (8 performance / 16 efficiency), up to 5.7 GHz, 36 MB Intel Smart Cache
Memory	32 GB PC5-41600 DDR5 5200 MHz Memory (configurable up to 128 GB)
Chipset	Intel B860
Software	Microsoft Windows® 11 Pro 64-bit, openSUSE Linux 64-bit, Symantec® Ghost
Graphics	Intel Graphics
Hard Drive Storage	Up to eight (8) storage drives, including two (2) 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: Four (4) 2.5" SATA III drive bays, one (1) USB 3.2-connected SATA HotSwap drive bay <i>Additional drive capacities / types are available.</i>
Drive Bays	Two (2) HotSwap USB 3.2-connected SATA, shock-mounted, removable trays. Read/write & read-only switchable. One (1) 2.5" SATA III x four (4) bay chassis <i>Optional IDE tray for legacy drives is available.</i>
Drive Bay Ecosystem	Standard with each μFRED: Two (2) unique HotSwap 3.5"/2.5" SATA III drive trays (USB 3.2-connected, read/write or read-only switchable) One (1) 2.5" SATA III x four (4) drive bay chassis (SATA-connected, HotSwap configurable) <i>Optional USB 3.2-connected drive bays: 1) 3-port, USB 3.1 general purpose hub, 2) 5-port Dongle Vault for software license dongles, 3) M.2 NVMe PCIe SSD (write-blocked switchable), and 4) Forensic Media Card Reader.</i>
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 GbE RJ-45 LAN (10/100/1000/2500 Mb/s) Intel® Wi-Fi 7 (802.11be) + Bluetooth 5.4
External Ports & Connectors	1 Thunderbolt™ 4 (40 Gbps) USB Type-C port - rear access 1 USB 3.2 Gen 2x2 (20 Gbps) Type-C port - rear access 3 USB 3.2 Gen 2 (10 Gbps) Type-A ports - 2 front access / 1 rear access 2 USB 3.2 Gen 2 (10 Gbps) Type-A ports - front-mounted 3 USB 3.2 Gen 1 (5 Gbps) Type-A ports - back-mounted 2 USB 2.0 Type-A ports - back-mounted 1 write-blocked SATA port - front-mounted on UltraBay 4 1 write-blocked SATA or SAS port - front-mounted on UltraBay 4 1 write-blocked PCIe port - front-mounted on UltraBay 4 1 write-blocked USB 3.0/2.0/1.1 port - front-mounted on UltraBay 4 1 write-blocked IDE port - front-mounted on UltraBay 4 1 write-blocked FireWire 1394 A/B (400/800 MB/s) port - front-mounted on UltraBay 4
Storage Controller	1 x M.2 slot (Key M), PCIe 5.0 x4 mode (2260/2280) 1 x M.2 slot (Key M), PCIe 4.0 x4 mode (2242/2260/2280) 4 x SATA 6 Gb/s ports
Accessories	SATA, SAS, IDE, FireWire, USB, and PCIe power / signal cables.
Audio	7.1 channel HD audio (Realtek® ALC897 audio CODEC) Two (2) audio jacks (line out, microphone input)
Keyboard / Mouse	<i>Optional Microsoft wireless desktop keyboard and mouse combination available.</i>
Display	<i>Optional 22" ergonomic LED monitor, 1920 x 1080 resolution, height adjust, tilt, and swivel with built-in speakers.</i>
Power	750 watt ATX modular power supply
Warranty & 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, 18 lbs
Accessory Toolbox	Adapters and cables - SAS, SATA, IDE, USB, microSATA, SATA III to M.2 / mSATA, PCIe SSD M.2 NVMe, FireWire Restore media containing Windows 11 Pro & Linux OS images. Original OEM SW/HW installation manuals and discs