

COMINO GRANDO FORENSIC DPR 4090-FT/3

ENGINEERED FOR STABLE 24/7 OPERATION

KEY ADVANTAGES

TOP OF THE LINE SOLUTION FOR PASSWORD RECOVERY

We produce high-end performance systems, based on the quality components, provided by world's top manufacturers. Each system is made to be the leader in its class, showing unmatched performance in password recovery.

CONFIDENCE AND STABILITY.

RESULTS DELIVERED

We don't just liquid-cool chips, like many other manufacturers do. We liquid-cool all the critical components, such as CPU, GPU, and GPU-related components, allowing them to operate in comfortable conditions, which results in long life of our devices. When it comes to quality builds, look no further.

SILENTLY OUTPERFORMS ANY SIMILAR AIR-COOLED SOLUTION

We work closely with manufacturers of every component which we use in our device, to fine-tune the system for the high performance, silent operation and low power consumption. Simply saying, our systems are fast, silent and effective.

193K

Passwords/sec in
Office 2013-2019
with Passware



Ultra-compact liquid-cooled GPU accelerated devices for password recovery and decryption

Powered by



FEATURES

LIQUID COOLED

More performance compared to similar air-cooled systems. Better cooling means less mistakes made by the chip which equals in more things done right.

REMOTE MANAGEMENT

iKVM remote management: BMC chip to provide intelligence for its IPMI architecture for out-of-band management to enhance hardware-level control for improved IT efficiency.

3 GPUs



3x Nvidia RTX 4090 in 4090-FT/3 configuration. Suitable GPUs for acceleration in forensic tasks.



QUICK-DISCONNECT COUPLINGS

Quick release coupling on each GPU and CPU allows to simplify maintaining and reduce maintenance time to increase system availability in case of GPUs failure. Moreover all hardware components and cooling system controller board are easily accessible after top lid is unmounted. All water cooled components and coolant are tested for compatibility in a chemical laboratory.

**SIMPLE MAINTENANCE.
FAST. RELIABLE. ENERGY EFFICIENT.**

PASSWARE BENCHMARK RESULTS*

Encryption	Passwords / second
MS Office 2013+	192 700
RAR 5.x	802 950
APFS (encrypted)	448 950
Apple iTunes Backup / iOS 10.x+	2 470
MS Windows / BitLocker	29 700
Blockchain wallet version 3	2 618 500
Cryptocurrency wallet	69 750

HASHCAT 6.2.5 BENCHMARK RESULTS*

Encryption	hashes / second
0 MD5	456.4 GH/s
100 SHA1	148.5 GH/s
1700 SHA2-512	21 969.1 MH/s
6211 TrueCrypt RIPEMD160 + XTS512	5 664.3 kH/s
7100 macOS v10.8+	9 131.1 kH/s
11300 Bitcoin/Litecoin wallet.dat	99 600 H/s
11600 7-ZIP	7 350.5 kH/s

* Maximum results achieved in Comino lab

TECHNICAL SPECIFICATIONS

COMINO GRANDO FORENSIC DPR 4090-FT/3

GPU 3x **NVIDIA RTX™ 4090**
GPU Base Clock: 2235 MHz
GPU Boost Clock: 2520 MHz
CUDA cores: 16384
Memory Interface: 384-bit
Discrete graphics adapter memory: 24 GB GDDR6X
Memory speed: 1008 Gbit/s

CPU AMD Ryzen™ Threadripper™ PRO 3975WX
Socket: sWRX8 Lithography: 7 nm Number of Cores: 32 Number of Threads: 64
Processor Base Frequency 3.50 GHz
Max Turbo Frequency Up to 4.20 GHz Cache 128MB L3 Cache
PCIe generation PCIe 4.0 128 lines

Motherboard Motherboard Chipset: AMD WRX80
CPU Socket support sWRX8
RAM Support: 8 x DIMM, up to 2048GB, DDR4 3200/3000/2933/2800/2666/2400/2133 MHz ECC and Non-ECC, buffered and Unbuffered, U-DIMM, R-DIMM and 3DS R-DIMM
PCIe expansion slots 7x PCIe 4.0 x16/x8
BMC Aspeed 2500 chipset IPMI 2.0-compliant and supports KVM over LAN (1x RJ45)1 x VGA output

RAM Storage 256 GB DDR4 3200MHz

Storage NVMe Gen4 SSD 2TB

Power supply 2x 1500W PSU (80+ Platinum, Gold) 94 - 264v 47/63Hz

Max Power consumption ~1.7 kW

Operation system Linux / Windows 10 Pro

Liquid-cooling 3x fullcover waterblocks for 3x nVidia RTX 4090
1x fullcover waterblock for AMD threadripper sWRX8 CPU + VRM

TECHNICAL SPECIFICATIONS

COMINO GRANDO FORENSIC DPR 4090-FT/3

Dimensions	442 x 812 x 177 mm (without rack-mounting handles)
Network Connectivity	2x RJ45 10 Gigabit Ethernet LAN ports + 2x RJ45 1 Gigabit Ethernet LAN ports optional
Operating temperature	Ambient Temperature Range 5-25°C (19°C - full load recommended operating temperature)
Placement Recommendations	19" rack-mountable (4U) or standalone as a Workstation
Rack AC Power Recommendations	100 - 240V AC power source with 2x C19 or 2x Schuko power sockets for each device setup 3kW power line.
Amount of heat	5802 BTU per hour
Air flow rate	130 CFM

PACKAGING CONTENT

DATASHEET
COMINO GRANDO FORENSIC
DPR 4090-FT/3

- COMINO GRANDO FORENSIC DPR 4090-FT/3 is 19" rack-mountable (4U)
- 2x AC Power Cables (UK (BS 1363) / EU (CEE 7/7) / US (NEMA 5-15 (B)) plug type)
- USB stick with system settings
- Rack handles
- A bottle with additional coolant



COMINO HOLDING LTD

30 Churchill Pl, London, England, E14 5RE
+44 203 670 9833

For more product information visit: www.comino.com

Email us: info@comino.com

GET SOCIAL

Instagram [@cominotech](https://www.instagram.com/cominotech)

Facebook [@cominotech](https://www.facebook.com/cominotech)

YouTube [@cominotech](https://www.youtube.com/cominotech)