

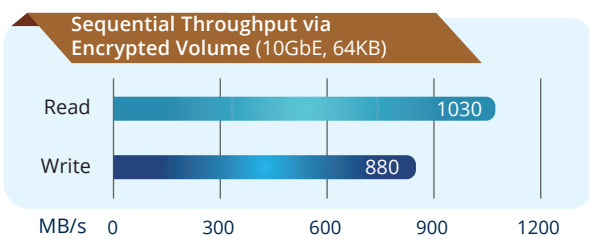
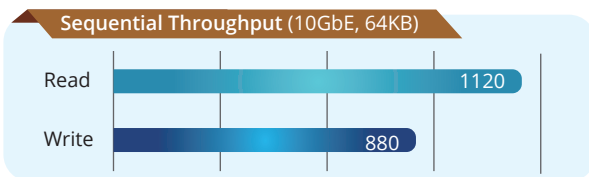
# GRAND-MF



Powered by a high-performance AMD R-Series quad-core processor with up to 64GB DDR4 RAM, the GRAND-MF provides two M.2 SATA 6Gb/s SSD slots that allows the greatest flexibility in tiered storage configuration and enables cache acceleration. This powerful hardware can also double the encrypted file transfer performance with AES-NI encryption acceleration. The GRAND-MF is designed for small and medium-sized businesses looking for private cloud, cross-platform file sharing and collaboration, efficient backup/restoration, storage for virtualization, and to future-proof their IT infrastructure with maximized ROI.



- » IAMD R Series RX-421ND quad-core 2.1 GHz CPU (Turbo Core up to 3.4 GHz)
- » 4 x DIMM Slots, up to 64 GB memory with 4 x 16GB DIMMs
- » Ready to support 10GbE network card
- » Storage expandable, up to 1PB

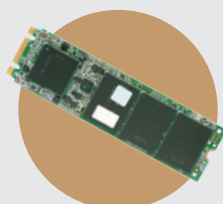


## AMD R-Series quad-core CPU, up to 64GB RAM, and AES-NI encryption acceleration

The GRAND-MF is equipped with a next-gen AMD R-Series RX-421ND quad-core 2.1 GHz processor (burst up to 3.4 GHz), dual channel 8GB/16GB/64GB DDR4 RAM (upgradable to 64GB), and four Gigabit LAN ports for lightning-fast multi-tasking with low power consumption and the ability to deliver up to 1531 MB/s throughput with a 10GbE configuration. The GRAND-MF's accelerated encryption engine with AES-NI provides unmatched encryption performance in its class (up to 1315 MB/s with AES 256-bit full storage server volume encryption) to boost system performance, security, and ensure the safety of sensitive business data stored in the storage server.

## M.2 SSD support

The GRAND-MF supports 2.5" SSD for caching to increase IOPS performance, and provides higher transfer speeds and reliability with support for two additional M.2 2280/2260SATA 6Gb/s SSDs. Using an SSD cache boosts overall system performance, and is perfect for improving the overall workflow of random IOPS demanding applications such as virtualization. The GRAND-MF combines M.2 SATA SSD, 2.5" SATA SSD and high-capacity 3.5" HDD in one box to effectively realize tiered storage for exceptional application performance and lower TCO of storage at the same time.



M.2



SSD



HDD



## Specifications

Model	GRAND-MF-16C-RP	GRAND-MF-16C	GRAND-MF-12B-RP	GRAND-MF-12B	GRAND-MF-08B-RP	GRAND-MF-08B
CPU	AMD R-Series RX-421ND quad-core 2.1 GHz processor, turbo core up to 3.4 GHz					
Encryption Acceleration	AES-NI					
Memory	Maximum 64GB (4 x 16GB) 4 x UDIMM DDR4, up to 2400MHz (For dual- or quad-DIMM configurations, you must use a pair of identical DDR4 modules.)					
Drive Types	16 x 3.5"/2.5" SATA 6Gb/s HDDs/SSDs		12 x 3.5"/2.5" SATA 6Gb/s HDDs/SSDs		8 x 3.5"/2.5" SATA 6Gb/s HDDs/SSDs	
M.2 SSD Slots	2 x M.2 2280/2260 SATA 6Gb/s SSDs					
Gigabit LAN Port	4 x Gigabit RJ45 LAN ports					
PCIe Slot	1 x PCIe Gen 3 x4					
USB Ports	2 x USB 3.0 port, 4 x USB 2.0 port					
LED Indicator	Status/Power, LAN, USB, Drive 1 - 16		Status/Power, LAN, USB, Drive 1 - 12		Status/Power, LAN, USB, Drive 1 - 8	
Button	Power/Status, Reset					
Maintenance Port	1 x 3.5 mm console port					
Form Factor	3U Rackmount			2U Rackmount		
Dimension (H x W X D)	130 x 481 x 536 mm 5.12 x 18.94 x 21.10 inch			89 x 482 x 534 mm 3.5 x 18.98 x 21.02 inch		
Net Weight	15.42 kg (34 lbs.)	14.25 kg (31.42 lbs.)	11.81 kg (26.04 lbs.)	10.71 kg (23.62 lbs.)	10.96 kg (24.16 lbs.)	9.86 kg (21.74 lbs.)
Operating Temperature & Relative Humidity	0 to 40°C (32 to 104°F), 5 ~ 95% RH non-condensing, wet bulb: 27°C					
Power Supply	500W (x2), 100-240V AC, 50/60 Hz	350W, 100-240V AC, 50/60 Hz	300W (x2), 100-240V AC, 50/60 Hz	350W, 100-240V AC, 50/60 Hz	250W (x2), 100-240V AC, 50/60 Hz	250W, 100-240V AC, 50/60 Hz
Fan	4 x 92 mm, 12V DC			2 x 70 mm, 12V DC		

## Options

Item	Order P/N	Description
Network card	LAN-10G2SF-MLX	Dual-port 10GbE SFP+ network expansion card
Network card	LAN-10G2T-X550	Dual-port 10GbE 10GBASE-T network expansion card
Network card	LAN-1G2T-I210	Dual-port Gigabit network expansion card
USB card	USB-U31A2P01	USB 3.1 Gen 2 10Gbps Type-A dual-port PCIe card
M.2 SSD	SSD-M2080-256GB-A01	SSD module
Heatsink	HS-M2SSD-01	Heatsink for M.2 SSD module, 14 x 14mm
SAS Card	SAS-12G2E	Dual port storage expansion, SAS 12Gbps
Rail kit	RAIL-A03-57	A03 series (Chassis) slide, Maximum load 57 kg
Cable	CAB-SAS10M-8644	MiniSAS Cable (SFF-8644 to SFF-8644), 1.0m
	CAB-SAS05M-8644	MiniSAS Cable (SFF-8644 to SFF-8644), 0.5m

## Ordering Information \*Pre-install Memory by Request

Part No.	Description
GRAND-MF-08B-R10	2U 8Bay front 3.5" HDD or SSD support, rackmount storage server system (Barebone) with AMD RX-421ND, 250W single PSU, RoHS
GRAND-MF-08B-RP-R10	2U 8Bay front 3.5" HDD or SSD support, rackmount storage server system (Barebone) with AMD RX-421ND, 250W redundant PSU, RoHS
GRAND-MF-12B-R10	2U 12Bay front 3.5" HDD or SSD support, rackmount storage server system (Barebone) with AMD RX-421ND, 350W single PSU, RoHS
GRAND-MF-12B-RP-R10	2U 12Bay front 3.5" HDD or SSD support, rackmount storage server system (Barebone) with AMD RX-421ND, 350W redundant PSU, RoHS
GRAND-MF-16C-R10	3U 16Bay front 3.5" HDD or SSD support, rackmount storage server system (Barebone) with AMD RX-421ND, 350W single PSU, RoHS
GRAND-MF-16C-RP-R10	3U 16Bay front 3.5" HDD or SSD support, rackmount storage server system (Barebone) with AMD RX-421ND, 500W redundant PSU, RoHS

## Packing List

Ethernet Cable x 2	Flat head screws (for 2.5" HDD)
Power cord x 2 (non RP model only one power cord)	Flat head screws (for 3.5" HDD)

### Headquarters

威強電工業電腦 IEI Integration Corp.

No. 29, Zhongxing Rd., Xizhi Dist., New Taipei City 221, Taiwan  
TEL : +886-2-86916798 / +886-2-26902098 FAX : +886-2-66160028  
sales@ieiworld.com www.ieiworld.com

### America

IEI Technology USA Corp.

138 University Parkway, Pomona, CA 91768  
TEL : +1-909-595-2819 FAX : +1-909-595-2816  
sales@usa.ieiworld.com usa.ieiworld.com

### China

威強電工業電腦 IEI Integration (Shanghai) Corp.

上海市闵行莘庄工业区申富路515号  
515, Shen Fu Rd., Xin Zhuang Industrial Develop Zone, Shanghai, 201108, China  
TEL:+86-21-3116-7799 FAX:+86-21-3462-7797  
sales@ieiworld.com.cn www.ieiworld.com.cn



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.