

# GRAND-AL

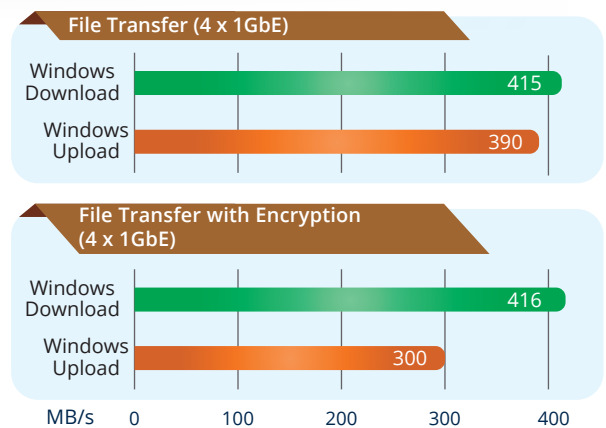
The GRAND-AL is a rackmount storage server that easily fits into a standard 19-inch rack, providing an ideal storage solution in the server room for small and medium businesses. The GRAND-AL comes with a PCIe slot for boosting potential applications: the QNAP QM2 expansion card can be installed to add an M.2 SSD cache/10GbE connectivity, a compatible wireless card can be installed to use the GRAND-AL as a wireless access point, and a USB 3.1 10Gbps card can be added for easier backup to/from multiple external storage. The GRAND-AL also provides a wide range of value-added features: 4K video playback and real-time transcoding; and web automation services with IFTTT.



- » Intel® Celeron® J3455 quad-core 1.5GHz CPU with AES-NI Encryption
- » 2 x SODIMM Slots, up to 8GB memory with 2 x 4GB DIMMs
- » 1 x PCIe x2 slot can support 10GbE network card
- » Storage expandable via USB3.0, up to 200TB

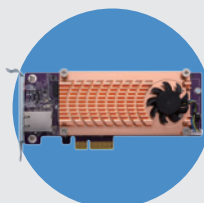
## Intel® Celeron® J3455 quad-core 1.5GHz CPU with AES-NI Encryption

Powered by the latest 14 nm Intel® Celeron® J3455 quad-core 1.5GHz processor (burst up to 2.3 GHz), up to 8GB DDR3L RAM, four Gigabit LAN ports, and SATA 6Gb/s, the GRAND-AL runs tasks smoothly and quickly with up to 415 MB/s read/ write speeds. The GRAND-AL features Intel® AES-NI accelerated encryption to drive transfer speeds of up to 416 MB/s with AES 256-bit encryption for both full storage server volumes and shared folders, boosting system performance while ensuring the confidentiality of sensitive business data stored in the storage server.



## Extend Storage Server Functionality with PCIe Expansion

The GRAND-AL has a PCIe expansion slot, providing flexibility in extending storage server functionality and potential applications. Install a QNAP QM2 card to provide M.2 SSD caching/10GbE connectivity, or use the GRAND-AL as a wireless access point by installing a compatible wireless network card, or boost the USB connectivity of the GRAND-AL by installing a USB 3.1 10Gbps card.



## Specifications



Model	GRAND-AL-04A	GRAND-AL-04A-RP	GRAND-AL-08B	GRAND-AL-08B-RP	GRAND-AL-12B	GRAND-AL-12B-RP
CPU	Intel® Celeron® J3455 4-core 1.5GHz (burst up to 2.3GHz)					
System memory	Memory Slots SODIMM x 2 (MAX. 8GB)					
PCIe Slot	1 x PCIe Gen 2 x2 slot					
Drive Trays	4		8		12	
Drive Types	SATA 6Gb/s, 3Gb/s HDD or SSD; Hot-swappable					
USB	4 x USB 3.0 (Rear)					
LAN Ports	4 x GbE					
HDMI Output	1 x HDMI 1.4b					
LED Indicators	System Status, HDD, Expansion, LAN					
Buttons	Power, Reset					
Form Factor	1U, rack mountable		2U, rack mountable		2U, rack mountable	
Dimensions (H x W x D)	44 x 439 x 499 mm 1.73 x 17.28 x 19.65 inch		89 x 482 x 534 mm 3.5 x 18.98 x 21.02 inch		89 x 482 x 534 mm 3.5 x 18.98 x 21.02 inch	
Net Weight	7.63 kg (16.82 lbs.)		11.02 kg (24.29 lbs.)		16.14 kg (35.58 lbs.)	
Temperature	0-40°C					
Relative Humidity	0-95% R.H.					
Power Supply	ATX 250W (single) ATX 250W (redundant x 2)		ATX 250W (single) ATX 250W (redundant x 2)		ATX 350W (single) ATX 250W (Redundant x2)	
Fan	2 x 40mm, 12V		DC 2 x 70mm, 12V		DC 2 x 70mm, 12V DC	

## Options

Item	Order P/N	Description
Network card	<b>LAN-10G2SF-MLX</b>	Dual-port 10GbE SFP+ network expansion card
Network card	<b>LAN-10G2T-X550</b>	Dual-port 10GbE 10GBASE-T network expansion card
Network card	<b>LAN-1G2T-I210</b>	Dual-port Gigabit network expansion card
USB card	<b>USB-U31A2P01</b>	USB 3.1 Gen 2 10Gbps Type-A dual-port PCIe card
Rail kit	<b>RAIL-B02</b>	B02 series slide for 1U, 2U chassis

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

Part No.	Description
<b>GRAND-AL-04A-R10</b>	1U 4Bay front 3.5" HDD or SSD support, rackmount storage server system (Barebone) with Intel® Celeron® J3455, 250W single PSU, RoHS
<b>GRAND-AL-04A-RP-R10</b>	1U 4Bay front 3.5" HDD or SSD support, rackmount storage server system (Barebone) with Intel® Celeron® J3455, 250W redundant PSU, RoHS
<b>GRAND-AL-08B-R10</b>	2U 8Bay front 3.5" HDD or SSD support, rackmount storage server system (Barebone) with Intel® Celeron® J3455, 250W single PSU, RoHS
<b>GRAND-AL-08B-RP-R10</b>	2U 8Bay front 3.5" HDD or SSD support, rackmount storage server system (Barebone) with Intel® Celeron® J3455, 250W redundant PSU, RoHS
<b>GRAND-AL-12B-R10</b>	2U 12Bay front 3.5" HDD or SSD support, rackmount storage server system (Barebone) with Intel® Celeron® J3455, 350W single PSU, RoHS
<b>GRAND-AL-12B-RP-R10</b>	2U 12Bay front 3.5" HDD or SSD support, rackmount storage server system (Barebone) with Intel® Celeron® J3455, 250W redundant PSU, RoHS

## Packing List

Ethernet cable x 2	Flat head screw (for 2.5" HDD)
Power cord x2 (non RP model only one power cord)	Flat head screw (for 3.5" HDD)

### Headquarters

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- Поставка более 17-ти миллионов наименований электронных компонентов;
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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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