

GRAND-AL

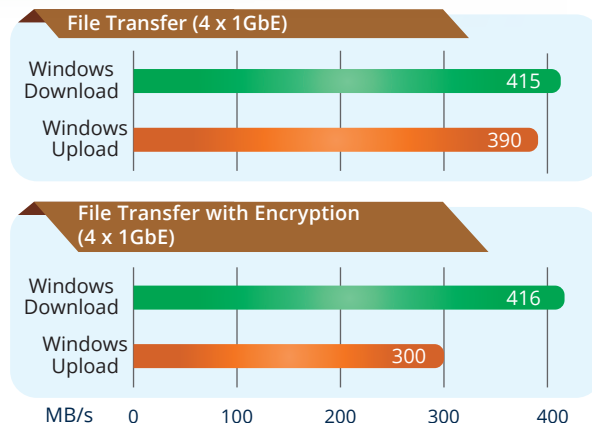
The GRAND-AL is a rackmount storage server that easily fits into a standard 19-inch rack, providing an ideal storage solution in the server room for small and medium businesses. The GRAND-AL comes with a PCIe slot for boosting potential applications: the QNAP QM2 expansion card can be installed to add 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	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
Rail kit	RAIL-B02	B02 series slide for 1U, 2U chassis

Ordering Information *Pre-install Memory by Request

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