

Alnico iSCSI RAID Series

Dual-Port / Quad-Port GbE iSCSI to SAS / SATA-II RAID Subsystem

► IP SAN Technology at a Glance

The maturity and popularity of iSCSI technology makes it re-define the deployment of storage technology. Today businesses are able to deploy a high performance IP SAN by leveraging their storage resources over an existing IP infrastructure without the need for investments of special-purpose cabling for Fiber Channel SAN. Other businesses who have built their FC SAN can also introduce IP SAN by simply installing bridges or gateways in order to construct a Heterogeneous IP SAN to maximize their storage flexibility and availability.

► Lower TCO and Higher Flexibility

Alnico iSCSI array's cost-performance offers customers a better alternative and value that rivals FC SAN. Alnico 8161i / 8121i is not only capable of delivering outstanding performance up to 600MBps / 120K IOps in full-duplex mode, but also enables an optimized and cost-effective TCO (total cost of ownership) to be achieved by rapidly deploying IP SAN environments with existing GbE switches and the plentiful IP network that could be painlessly managed and maintained without further ado. Accompanied with hardware built-in snapshot function, Alnico iSCSI RAID can easily replicate several point-in-time data that could be instantly recovered at any time without interrupting production, the built-in snapshot function at the same time cuts down the licensing cost of backup software. With the excellence of cost-performance the Alnico iSCSI array possesses, customers could maximize their storage resource utilization and their TCO will be protected for the future.

► Product Feature Highlights

- Dual-Port or Quad-Port GbE iSCSI, supports link aggregation, fail-over, and load-balancing.
- Built-in snapshot, volume backup and recovery become an easy task.
- Support iSCSI Jumbo Frame, maximizing data transmission efficiency.
- Multiple iSCSI target nodes support.
- Support CRC checksum for Header Digest and Data Digest, re-ensuring data integrity.
- Support CHAP encryption and host access control for data protection.
- Microsoft VSS support, reducing the complexity of storage management.
- N-way mirror, an advanced disk-mirroring configuration, makes N copies of mirrored disks.
- Support RAID Level 0, 1, 0+1, N-way mirror, 3, 5, 6, 10, 50, 60, JBOD.
- On-line volume migration for zero down-time.
- Support disk spin-down (MAID) when disks not in use to extend disk lifespan.
- Hard drive support: SAS 3.0Gb/s, SATA-I 1.5Gb/s, and SATA-II 3.0Gb/s. (model dependent)
- SAS JBOD expansion support, maximum 80 drives. (1 x RAID + 4 x JBODs)
- Complete modular and hot-swappable design for Power supply, FAN module, and disk trays.
- Management UI via serial console, SSH telnet, HTTP Web UI, and secured Web. (HTTPS)





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Model	Alnico 6 iSCSI RAID Array		Alnico 8 iSCSI RAID Array		Alnico JBOD
	AL-6080i	AL-6120i	AL-8121i	AL-8161i	AL-8161Ji
Storage Processor	Intel Xscale 81341 I/O processor		Intel Xscale 81342 I/O processor		N/A
RAID Features	<ul style="list-style-type: none"> ▪ RAID Levels: 0, 1, 3, 5, 6, 0+1, 10, 30, 50, 60 & JBOD ▪ Up to 2GB Memory support with ECC protection ▪ Auto drive insertion / removal detection and rebuilding ▪ 1024 logical volumes in the system (AL-8121i / AL-8161i) ▪ 256 logical volumes in the system (AL-6080i / AL-6120i) ▪ Microsoft VSS support (AL-8121i / AL-8161i only) ▪ Online capacity expansion and RAID level migration simultaneously ▪ SnapShot-on-the-box: Up to 16 Logical Volume supported with rollback enabled Each Logical volume support up to 32 Snapshot volumes, total 512 snapshot volumes per system <ul style="list-style-type: none"> ▪ N-way mirror supported ▪ Global and dedicated hot spare disks ▪ Online RAID level/stripe size migration ▪ Offline Array roaming ▪ Hardware iSCSI off-load engine support ▪ Disk auto spindown support 				
iSCSI Features	<ul style="list-style-type: none"> ▪ iSCSI Jumbo frame support ▪ iSNS & DHCP support ▪ CHAP authentication enabled ▪ Support Link aggregation/ Trunking ▪ Support Microsoft MPIO & MC/S ▪ Header/Data digest support ▪ Multiple iSCSI target nodes support (AL-8121i / AL-8161i only) <ul style="list-style-type: none"> ▪ iSCSI GbE ports support independent access, failover, and load-balancing ▪ LUN access control (read-write, read only) ▪ Up to 32 host connections per controller ▪ Up to 16 hosts clustered per volume ▪ Support Windows, Linux, and MAC OS 				
System Type	2U Rackmount		2U Rackmount	3U Rackmount	3U Rackmount
Host Interface	2 x iSCSI GbE ports		4 x iSCSI GbE ports		2 x up stream miniSAS (4x3Gb) ports
Disk Interface	8 x SATA-II drives	12 x SATA-II drives	12 x SAS / SATA-II drives	16 x SAS / SATA-II drives	16 x SAS / SATA-II drives
	No expansion port		One expansion port to connect up to 4 JBOD units. Up to 80 drives support		1 x down stream miniSAS (4x3Gb) port for expansion
Battery Backup	Optional, supporting 72 hours battery backup time				
RAID Management	Firmware-embedded manager through Front LCD control panel Field-upgradeable firmware in flash ROM Management GUI via firmware-embedded serial console, SSH telnet, HTTP Web GUI, and secured Web UI (HTTPS)				
Monitoring / Indicators	All system status can be monitored via Firmware-embedded SSH telnet, HTTP & HTTPS based RAID manager All system status can be monitored via Syslog and Windows messenger System status indication through LCD, LED and alarm buzzer All system events can be sent to multiple user alerts to be via "Plain English" e-mails Firmware-embedded SNMP agent allows remote to monitor events through LAN with no SNMP agent required				Through in-band SES (SCSI Enclosure Service)
Operating System	OS independent and transparent				
Power Supply	Redundant by Dual 375W		Redundant by Dual 375W	Redundant by Dual 460W	Redundant by Dual 460W
	Power modules with PFC feature, Load sharing type and cable-less design				
Electrical	AC Voltage 100-240 VAC / AC (+- 10% Full Range), Frequency 50-60Hz				
Temperature	5 to 35 degree C. Non Operating Temperature: -40 to 60 degree C				
Relative Humidity	20% to 80% non-condensing				
Dimension	446.5mm(W) x 480mm(D) x 2U		446.5mm(W) x 527mm(D) x 2U	446.5mm(W) x 510mm(D) x 3U	446.5mm(W) x 510mm(D) x 3U
Weight	13KGS	13.5KGS	17KGS	20KGS	20KGS

* Specification subject to change without notice, all trademarks or registered trademarks are properties of their respective owners.



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