

about xpress disk (xpd)

The Kove® XPD™ L2 storage appliance provides the highest performance Fibre Channel and InfiniBand storage available, holding world records for bandwidth, latency, and IOPS. XPD™ L2 uses DRAM to deliver deterministic performance across all I/O patterns, whether reads or writes, small or large blocks, sequential, random, burst or sustained access, one minute or ten year duration, 10% or 100% full, or any combination thereof.



Applications can run Kove® XPD™ L2's under load without concern that performance will wear down, that media will wear out, or that performance characteristics will change as storage occupancy changes.

performance The Kove® XPD™ L2 delivers I/O up to **28.5 GB/sec** bandwidth and **11.7 million IOPS** (*sustained and random, not sequential*), and can deliver **5 µs** read and **5 µs** write latency — all world records, and for the first time available in a single product. All performance is sustained and deterministic: XPD™ L2's do just as well in customer testing as in workhorse performance lasting years at a time under load. Neither will performance change according to how full the disk is, so performance is consistent across the day's workload.

Kove® XPD™ L2 storage performs consistently and predictably regardless of block size, access pattern, or access duration. Some vendors “tune” product performance for 4K blocks, or optimize for access pattern, and then perform poorly when using 512-byte or 1MB blocks, or sequential or random I/O. Kove® XPD™ L2's deliver consistent performance across the I/O spectrum without qualification. They just work — faster.

features XPD™ L2's are InfiniBand and Fibre Channel direct and mesh attachable to accommodate scalable storage needs. All speeds are supported: SDR, DDR, and QDR for InfiniBand, and 2-8 Gbps for Fibre Channel.

Kove® XPD™ L2 storage monitors overall storage-system health, and tracks over 100 system components and monitorables. The device can self-heal most problems before they are ever noticed, and report health status via SNMP, syslog, or HTTP.

The XPD™ L2 uses an uninterruptable-power supply (UPS) to protect against downtime. Data integrity will not be threatened by utility-company power spikes or outages. The XPD™ L2 will gracefully shut down upon any power outage to protect data, and data will be where it should be when the XPD™ L2 restarts.

Comprehensive support is available, ranging from next day business to 24x7x365, two hour on-site, worldwide transferable.



the storage you need when time is money

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Capacity	64GB – 2TB per unit, mesh connectable for larger capacities
Bandwidth	28.5 GB/sec, consistent and sustainable for any time duration (world record)
IOPS	11.7 million, consistent and sustainable for any time duration (world record)
Response Time	5 μ s read, 5 μ s write consistent and sustainable for any time duration (world record)
Instant Copy	6.7 PB/sec (Petabytes) – no performance disruption during operation (world record)
Management Connectivity	10/100/1000 Ethernet twisted pair, 4 ports
LUNs	Up to 255
Disk Drives	Up to 16 SAS
Storage Connectivity	
Fibre Channel:	2,4,8 Gbps
InfiniBand:	SDR, DDR, QDR
Storage Ports	
Fibre Channel:	Up to 24 ports 2,4,8 Gbps per port
InfiniBand:	Up to 12 ports SDR, DDR, QDR
Memory RAS Features	ECC plus SDDC (standard), rank sparing and RAM mirroring (optional)
Sparing	Prevent DIMM rank failure from affecting data integrity. Device copies failing rank to spare and then disables failed rank.
Mirroring	Device maintains mirrored copy of memory image. Device fails over to mirrored copy if an uncorrectable error occurs.
Management	HTTPS Command Line via SSH, SNMP, and syslog Phone home, customer selectable
Data Protection	Multiple modes for de-staging data from RAM onto persistent media Integrated instant copying Integrated monitoring logic for system health management and UPS
Uninterruptible Power Supply	XPD™ L2 tightly integrates with standard UPS, bringing unit down gracefully if ever necessary. Integration with centralized UPS infrastructure available in many contexts.
Health Monitoring	Device tracks health components for >100 monitorables, and self-heals most problems that can occur
Hot Swappable	Disk drives (16), power supplies (4)
Power	Up to 1,100 watts. USA UL listed, FCC; Canada CUL listed; Germany TUV Certified; EN 60950/IEC 60950-Compliant; CB Report; CCC Certification.
Warranty	World-wide support under contract: on-site next day to 2-hour on-site same day