

Channel Gateway X (CGX) is an industry-leading mainframe virtual tape (MVT™) controller that allows data centers to leverage leading Fibre Channel, NAS or internal storage systems to reduce or eliminate physical tape and improve overall tape operations.

Solution Specifications

The solutions are available in single or multiple CGX controller configurations, depending on throughput or availability requirements. There are no limitations on the number of CGX controllers that can be configured for a virtual tape infrastructure, nor are there any limitations on the backend storage capacity for CGX configurations.

Mainframe Connectivity

CGX controllers are available with 32 Gb/s FICON or ESCON connectivity to the mainframe. FICON configurations are backwards compatible with 16 and 8 Gb/s FICON.

Storage System Connectivity

CGX controllers are available with up to 4 fibre channel ports or 1, 10 or 25 GbE, up to 4 ports connectivity to attached storage systems.

Mainframe Support

Operating Systems	Latest versions of z/OS, z/VM and z/VSE
Tape Device Emulation	3490 and 3590
Applications/Tape Management Systems	All major tape applications and tape management systems are supported
Virtual Tape Devices per FICON Channel	4,096+*
FICON I/O Channels	32 Gb/s, 2 or 4 per controller
FICON Throughput per CGX	800 MB/s**

* limited by the standard IBM 3490 or 3590 tape HCD/IOCP gen definition; CGX imposes no limits on the number of devices

** throughput depends on many factors; total system throughput can be increased with additional CGXs

Hardware Specifications†

All specifications below are per CGX controller.

Dimensions

Form Factor	Rack (2U)	
Height	8.59 cm	3.38 in
Width	44.54 cm	17.25 in
Depth	74.30 cm	29.25 in

Weight

Standard Configuration	51.5 lb	23.6 kg
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Input Requirements

Rated Line Voltage	100 to 127 VAC	200 to 240 VAC
Rated Input Frequency	50 to 60 Hz	
Rated Input Current	9.4 A @ 100 VAC	4.5 A @ 200 VAC
Maximum Rated Input Power	940 W @ 100 VAC	900 W @ 200 VAC



Hardware Specifications

- 32 Gb/s FICON (up to 4 ports) or ESCON mainframe connectivity
 - Auto-negotiates 32, 16 and 8 Gb/s FICON
- NFS or Fibre Channel storage connectivity
- Dual hard drives, mirrored OS
- Dual power supplies and fans (non-disruptive replacement)
- 2U rack mount profile
- Industry-standard, enterprise-quality hardware components
- Hardware compression

Solution Features

- Compatible with new or existing enterprise storage systems from major vendors such as Hitachi, NetApp, Lenovo, IBM, HPE, Dell EMC Data Domain and Isilon, and Cohesity
- Throughput and capacity can be scaled non-disruptively
- Virtual tape cartridge sizes are configurable
- Supports up to 256K block sizes
- FICON multipathing for HA configurations and workload balancing
- Comprehensive features and options available to meet any enterprise's tape requirements

Solution Benefits

- Improves performance for all tape operations
- Significantly improves Recovery Point Objectives (RPOs) and Recovery Time Objectives (RTOs)
- Eliminates cost of storing, handling, transporting & managing tapes
- Significant reduction in datacenter
 - Floor space
 - Electrical usage
 - HVAC requirements
- Secure, Resilient and Immediate Disaster Recovery
 - Tape volumes are available both locally & at DR site
 - Recovery at DR site is immediate – no waiting for physical tape retrieval

Additional Options

- **Complete MVT™ Solution**
Internal and external storage available for a complete, all-in-one mainframe virtual tape solution
- **Synchronous Tape Matrix™ (STM)**
True continuous availability for mainframe virtual tape
- **MVThsm™**
Off-host HSM recycle to optimize tape capacity without MSUs
- **Luminex Replication**
Improve your disaster recovery plan with asynchronous remote replication to one or more DR sites
- **RepMon™**
Replication monitoring and auditing at the VOLSER level
- **Push Button DR™**
Disaster recovery and testing with “push button” ease
- **CGSafe™**
Encryption and key management
- **CloudTAPE™**
Replace physical tape archives and/or third copy backups with always available, geographically dispersed and secure cloud storage
- **MVT Vault™**
Cost-effective virtual tape vaults for remote, off site storage
- **P2V™**
Off-host conversion of 3490 or 3590 physical tapes to virtual tapes for remote, off-site archives
- **Mainframe Data Integration (MDI)**
Securely and efficiently exchange data and share workloads between z/OS mainframes and distributed systems
- **Tape Migration Software and Services**
Seamlessly transition physical and virtual tapes with exact copies of original VOLSER numbers and labels
- **LTMon™**
Integrated, centralized management from the mainframe console

About Luminex

Luminex serves as a trusted advocate helping enterprise customers protect, manage, and leverage corporate data assets by developing and delivering high quality, innovative technology solutions.

Luminex Software, Inc.
871 Marlborough Avenue
Riverside, CA 92507

1.888.LUMINEX
1.951.781.4100
www.luminex.com

Power Specifications

CGX controllers use redundant 800W hot plug power supplies.

Input Voltage Range (V rms)	100 to 240								
Frequency Range (Nominal) (Hz)	50/60								
Nominal Input Voltage (V rms)	100	120	127	200	208	220	230	240	
Rated Steady-State Power Output	800W @ 100 VAC				800W @ 240 VAC				
Maximum Rated Output Wattage Rating	800								
Nominal Input Current (A rms)	9.1	7.5	7.0	4.4	4.2	4.0	3.8	3.7	
Maximum Rated Input Wattage Rating (Watts)	906	891	878	871	870	869	868	868	
Maximum Rated VA (Volt-Amp)	915	900	887	880	879	877	876	877	
Efficiency (%)	88.3	89.8	91.1	91.9	92.0	92.1	92.2	92.1	
Power Factor	0.99								
Leakage Current (mA)	0.32	0.38	0.40	0.63	0.65	0.69	0.72	0.75	
Maximum Inrush Current (A peak)	30								
Maximum Inrush Current Duration (mS)	10								
Maximum BTU-Hr	3090	3040	2997	2972	2968	2963	2960	2963	

Operating Environment

Temperature, at sea level	10° to 35°C	50° to 95°F
Temperature, maximum rate of change	20°C/hr	36°F/hr
Relative humidity	5 to 95% (non-condensing)	
Altitude @ 35°C (95°F) max, derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level	up to 3050 m	up to 10,000 ft

Emissions Classification

FCC Rating	Class A
Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1

† Hardware specifications are subject to change and dependent on final configurations.