

LoadMaster® Hardware Datasheet

DATA SHEET

Scalable high-performance application delivery

Progress Kemp LoadMaster hardware load balancers offer the scalability, feature depth and security required to enable resilient delivery of a wide range of application workloads for organizations of all sizes and capabilities. LoadMaster simplifies application delivery with easy management via web UI, API and Kemp 360 Central with a compelling TCO and outstanding customer support.

The Benefits of Kemp LoadMaster

Resilient

LoadMaster can enhance application availability and resilience with the option for Highly Available (HA) pairing of appliances and geographic server load balancing (GSLB) removing single points of failure in the data center and across data centers. Application server health checks enable redirection of traffic to healthy servers and the optional Kemp 360 Vision service provides 24x7 proactive support to ensure continuous application availability.

Secure

As the access point for applications, LoadMaster provides authentication and attack mitigation services to prevent malicious and unauthorized access to application resources. The Edge Security Pack (ESP) enables pre-authentication of clients (LDAP, OIDC, Active Directory, RADIUS and SAML) while the Web Application Firewall (WAF) offers continuous application-level protection through OWASP CRS with updated reputation data daily.

Easily Managed

LoadMaster appliances can be managed via the intuitive web UI, via API (PowerShell/RESTful) or via Kemp 360 Central. Application templates simplify deployment and optimization, while the API provides an easy way to automate configuration and management tasks whether through DevOps toolsets or operational frameworks.

Scalable

As application delivery demands grow, LoadMaster can scale by clustering multiple appliances together into a single load balancer entity. As well as scaling to meet increasing capacity requirements, clustering also provides resilience as the failure of a cluster member is gracefully handled with remaining members continuing to provide service.

Low Cost of Ownership

LoadMaster delivers performance and functionality at a compelling price point when measured against the key metrics of SSL transactions per second, application throughput and active connections.

Coupled with the low operational overheads delivered by features such as application templates and our world class customer support services, organizations can achieve significant TCO reductions on application delivery.

Fully Featured

LoadMaster includes a comprehensive set of features to enable deployment of application delivery and interfaces and API to integrate with existing authentication, logging, management, and provisioning systems.

Support Subscriptions

LoadMaster support subscriptions offer flexibility, simplicity, and value to meet your application delivery requirements and challenges. Support subscriptions are annual and can be upgraded and downgraded as application delivery demands change for maximum flexibility. The tiers are mapped to common customer challenges and requirements, simplifying the task of selecting the appropriate feature set and support levels. This also offers additional value of up to 40% when compared to individually selecting features.

LoadMaster Support Subscription Tiers

Each subscription tier adds to the features and services delivered by lower tiers as follows:

| Standard support | Enterprise support | Enterprise Plus support |
|----------------------------|--|--|
| 10x5 Customer Support | 24x7 Customer Support | 24x7 Customer Support |
| Software Updates | Software Updates | Software Updates |
| Security Patches | Security Patches | Security Patches |
| L4-L7 Application Delivery | L4-L7 Application Delivery | L4-L7 Application Delivery |
| Network Telemetry | Network Telemetry | Network Telemetry |
| | Intrusion Prevention | Intrusion Prevention |
| | Edge Security Pack | Edge Security Pack |
| | Kemp 360 Vision - managed service for application monitoring & preemptive alerting | Kemp 360 Vision - managed service for application monitoring & preemptive alerting |
| | Kemp 360 Central - centralized management & orchestration software | Kemp 360 Central - centralized management & orchestration software |
| | | Web Application Firewall (WAF) with updated reputation data daily |
| | | GSLB with updated reputation data daily |
| | | Floating License |

Features

Network Telemetry

- Export network flow data to Flowmon Collector in the industry standard IPFIX protocol format.
- Leverage the power of Flowmon Collector to store and analyze flow data, gaining visibility into the entire application value delivery chain to identify bottlenecks, misconfigurations, and potential security issues.
- Combine LoadMaster-exported data with IPFIX data from other network nodes on Collector to gain a complete picture of your infrastructure.
- View LoadMaster data on Flowmon Collector in dashboards and widgets specific to LoadMaster and the Virtual Services defined on it.

Web Application Firewall (WAF)

- Real-time application threat mitigation
- Updated reputation data daily
- Threats mitigated
 - Cookie tampering
 - Cross site request forgery
 - Cross site scripting
 - Data loss prevention
 - SQL injection
 - PCI-DSS Section 6.6 compliance

Edge Security Pack

- Microsoft TMG replacement
- Pre-authentication
- Multi-domain authentication & SSO
- X.509 client certificate authentication
- Custom login forms
- Two-factor authentication

- OIDC, SAML, Active Directory, RADIUS & LDAP
- Forms to Forms based authentication

Intrusion Prevention

- Snort compatible IPS
- Allow/Deny IP by address

Global Server Load Balancing (GSLB)

Scheduling and Balancing

- Round Robin
- Weighted Round Robin
- Chained Failover (Fixed Weighting)
- Regional
- Real Server Load
- Location Based
- Scale to 256 nodes per FQDN
- Use EDNS to direct client traffic

Security

- Allow/Deny List (Access Control List)
- Updated reputation data daily
- DDoS mitigation

Health Checking & Failover

- ICMP health checking of server farm machines
- Layer 4 TCP checking
- HTTP/HTTPS health check
- Active/Active High Availability

L4-L7 Application Delivery

General

- Server Load Balancing (SLB) for TCP/UDP based protocols
- TLS (SSL) Offload
- Layer 7 Content Switching

- Transparent caching for HTTP/HTTPS
- Compression of static and dynamic HTTP/HTTPS content
- HTTP/2 Support
- Up to 1000 Virtual and 1000 Real Servers
- NAT-based forwarding
- Support for Direct Server Return (DSR) configurations
- Configurable S-NAT support
- VLAN Trunking (802.1Q)
- Link interface bonding (802.3ad)
- IPv6 support for addressing and features
- IPv6 - IPv4 bidirectional conversion

Health Checking

- Aggregated health checks
- ICMP health checking
- Layer 7 checking against any target server port
- Active/Hot Standby configurations for High Availability
- Stateful Failover
- Scale-out Clustering

Session Persistence

- Source IP (L4)
- TLS (SSL) SessionID (L4)
- HTTP/HTTPS Browser-session (L7)
- HTTP/HTTPS WebClient-session (L7)
- RDP Login ID (L7)
- Port Following for mixed HTTP/HTTPS sessions
- Session reconnection for Microsoft RDS

Scheduling and Balancing Methods

- Round Robin
- Weighted Round Robin
- Least Connection
- Weighted Least Connection
- Agent-based Adaptive
- Chained Failover (Fixed Weighting)
- Source-IP Hash

- Layer 7 Content Switching
- Global Server Load Balancing (GSLB)
- AD Group based traffic steering

SSL/TLS Feature

- Configurable TLS (1.0, 1.1, 1.2, 1.3) and SSL (2.0, 3.0)
- Support for EV (Extended Validation) certificates
- OCSP certificate validation
- Server Name Identification (SNI) support
- Support for up to 1,000 TLS (SSL) certificates
- Automated TLS (SSL) certificate chaining
- Certificate Signing Request (CSR) generation
- FIPS 140-2 Level 1
- STARTTLS mail protocols (POP3, SMTP, IMAP)

Administration

- Change auditing
- Web User Interface (WUI)
- SSH & physical console
- RESTful and PowerShell APIs
- VMware vRealize Orchestrator
- Context based help (WUI)
- Real time display of performance and availability
- Application templates
- Remote syslog support
- Automated configuration backup
- Selective restore of configuration
- Connection draining
- Comprehensive logging and reporting
- SNMP support
- Diagnostic shell with in-line tcpdump

Security

- Allow/Deny List (Access Control List)
- IP address filtering
- IPsec Tunnel support

- DDoS mitigation, including L7 rate-based attacks
- IPSec VPN to Azure, AWS, and public clouds
- Authenticated NTP

Kemp® 360 Central®

- Centralized management and orchestration
- Included with Enterprise support subscription, and Enterprise Plus support subscription
- LoadMaster configuration management
- Automated LoadMaster backups
- Centralized & scheduled firmware updates
- LoadMaster logfile consolidation
- Performance management
- 3rd party load balancer support

Kemp® 360 Vision®

- Managed service for application monitoring & preemptive alerting
- Included with Enterprise support subscription, and Enterprise Plus support subscription
- 24x7 automated issue escalation service
- Proactive issue management
- Integrated with Kemp Support ticketing

Specification

| | LM-X1 | LM-X3 |
|--------------------------------------|--------------------------------|-----------------------------|
| Support Subscription Tiers | Standard and Enterprise | All |
| Performance | | |
| Application throughput (Layer 4) | 1 Gbps | 3.6 Gbps |
| Application throughput (Layer 7) | 1 Gbps | 3.4 Gbps |
| Bulk Encryption | 1 Gbps | 2 Gbps |
| SSL TPS (2K Keys) | 1,000 | 1,700 |
| Concurrent Layer 4 Connections | 4,000,000 | 8,600,000 |
| Concurrent Layer 7 Connections | 32,800 | 125,000 |
| Layer 7 HTTP requests/sec | 70,000 | 180,000 |
| Layer 4 requests/sec | 78,000 | 260,000 |
| Layer 4 connections/sec | 25,000 | 75,000 |
| Hardware Platform | | |
| CPU | 2.2GHz, 4C/4T | 3.3GHz, 2C/2T |
| Memory (RAM Size) | 4GB | 8GB |
| Storage | 500GB HDD | 500GB HDD |
| Gigabit Ethernet Ports | 4 | 8 |
| 10 Gigabit Ports (SFP+) | N/A | N/A |
| VGA Ports | 1 | 1 |
| Console Ports | 1 RJ45 | 1 RJ45 |
| Rack Size | 1U | 1U |
| Dimensions | 430 x 310 x 44mm | 430 x 300 x 44mm |
| Weight | 8.31lbs / 3.77kg | 11.1lbs / 5.37kg |
| Storage Temperature | -4 to 167 °F (-20 to 75 °C) | -4 to 167 °F (-20 to 75 °C) |
| Operating Temperature | 32 to 104 °F (0 to 40 °C) | 32 to 104 °F (0 to 40 °C) |
| Storage Humidity | 10% to 90% non-condensing | 10% to 90% non-condensing |
| Operating Relative Humidity | 10% to 90% non-condensing | 10% to 90% non-condensing |
| Max Altitude in Operational Mode | 16,404 feet (5,000 meters) | 16,404 feet (5,000 meters) |
| Max Altitude in Non-Operational Mode | 30,000 feet (9,144 meters) | 30,000 feet (9,144 meters) |
| Input Voltage and Frequency Ranges | 100-240VAC, 50-60Hz | 100-240VAC, 50-60Hz |
| Hot-Swap, Redundant Power Supply | No | No |
| Max power supply (W) | 65 | 300 |
| Average Power Consumption (W) | 28.44 | 125.4 |
| Total Amp Drawn (A) | 0.54 Max | 2.5 Max |
| Heat Output (BTU) | 96.9 Max | 427.6 Max |
| Acoustic Noise (dB) | 50.7 | 59.4 |

Specification

| | LM-X15 | LM-X25 |
|--------------------------------------|-----------------------------|-----------------------------|
| Support Subscription Tiers | All | All |
| Performance | | |
| Application throughput (Layer 4) | 15.8 Gbps | 26.2 Gbps |
| Application throughput (Layer 7) | 15 Gbps | 25 Gbps |
| Bulk Encryption | 8 Gbps | 20 Gbps |
| SSL TPS (2K Keys) | 12,000 | 20,000 |
| Concurrent Layer 4 Connections | 35,000,000 | 75,800,000 |
| Concurrent Layer 7 Connections | 262,500 | 525,000 |
| Layer 7 HTTP requests/sec | 800,000 | 1,000,000 |
| Layer 4 requests/sec | 1,600,000 | 2,000,000 |
| Layer 4 connections/sec | 450,000 | 675,000 |
| Hardware Platform | | |
| CPU | 3.8GHz, 4C/8T | 2x 2.1GHz, 12C/24T |
| Memory (RAM Size) | 32GB | 64GB |
| Storage | 2 x 500GB HDD (RAID 1) | 2 x 1TB HDD (RAID 1) |
| Gigabit Ethernet Ports | 16 | 2 |
| 10 Gigabit Ports (SFP+) | 4 | 12 |
| VGA Ports | 1 | 1 |
| Console Ports | 1 RJ45 | 1 RJ45 |
| Rack Size | 1U | 2U |
| Dimensions | 430 x 480 x 44mm | 437 x 570 x 88mm |
| Weight | 26.01lbs / 11.8kg | 35.2lbs / 16kg |
| Storage Temperature | -4 to 167 °F (-20 to 75 °C) | -4 to 167 °F (-20 to 75 °C) |
| Operating Temperature | 32 to 104 °F (0 to 40 °C) | 32 to 104 °F (0 to 40 °C) |
| Storage Humidity | 10% to 90% non-condensing | 10% to 90% non-condensing |
| Operating Relative Humidity | 10% to 90% non-condensing | 10% to 90% non-condensing |
| Max Altitude in Operational Mode | 16,404 feet (5,000 meters) | 16,404 feet (5,000 meters) |
| Max Altitude in Non-Operational Mode | 30,000 feet (9,144 meters) | 30,000 feet (9,144 meters) |
| Input Voltage and Frequency | 100-240VAC, 50-60Hz | 100-240VAC, 50-60Hz |
| Hot-Swap, Redundant Power Supply | Yes | Yes |
| Max power supply (W) | 2 x 450 | 2 x 700 |
| Average Power Consumption (W) | 165.27 | 479.6 |
| Total Amp Drawn (A) | 3.75 Max | 5.8 Max |
| Heat Output (BTU) | 563.57 Max | 1635.5 Max |
| Acoustic Noise (dB) | 62.7 | 71.4 |

Specification

| | LM-X40 | LM-X40M |
|--------------------------------------|-----------------------------|-----------------------------|
| Support Subscription Tiers | All | All |
| Performance | | |
| Application throughput (Layer 4) | 42.2 Gbps | 42.2 Gbps |
| Application throughput (Layer 7) | 40 Gbps | 40 Gbps |
| Bulk Encryption | 20 Gbps | 20 Gbps |
| SSL TPS (2K Keys) | 35,000 | 35,000 |
| Concurrent Layer 4 Connections | 75,800,000 | 300,000,000 |
| Concurrent Layer 7 Connections | 525,000 | 3,000,000 |
| Layer 7 HTTP requests/sec | 1,250,000 | 1,250,000 |
| Layer 4 requests/sec | 2,600,000 | 2,600,000 |
| Layer 4 connections/sec | 825,000 | 825,000 |
| Hardware Platform | | |
| CPU | 2x 3.0GHz, 12C/24T | 2x 3.0GHz, 12C/24T |
| Memory (RAM Size) | 64GB | 256GB |
| Storage | 2 x 1TB HDD (RAID 1) | 2 x 1TB HDD (RAID 1) |
| Gigabit Ethernet Ports | 2 | 2 |
| 10 Gigabit Ports (SFP+) | 12 | 12 |
| VGA Ports | 1 | 1 |
| Console Ports | 1 RJ45 | 1 RJ45 |
| Rack Size | 2U | 2U |
| Dimensions (with Bezel) | 437 x 570 x 88mm | 437 x 570 x 88mm |
| Weight | 35.2lbs / 16kg | 35.2lbs / 16kg |
| Storage Temperature | -4 to 167 °F (-20 to 75 °C) | -4 to 167 °F (-20 to 75 °C) |
| Operating Temperature | 32 to 104 °F (0 to 40 °C) | 32 to 104 °F (0 to 40 °C) |
| Storage Humidity | 10% to 90% non-condensing | 10% to 90% non-condensing |
| Operating Relative Humidity | 10% to 90% non-condensing | 10% to 90% non-condensing |
| Max Altitude in Operational Mode | 16,404 feet (5,000 meters) | 16,404 feet (5,000 meters) |
| Max Altitude in Non-Operational Mode | 30,000 feet (9,144 meters) | 30,000 feet (9,144 meters) |
| Input Voltage and Frequency | 100-240VAC, 50-60Hz | 100-240VAC, 50-60Hz |
| Hot-Swap, Redundant Power Supply | Yes | Yes |
| Max power supply (W) | 2 x 700 | 2 x 700 |
| Average Power Consumption (W) | 479.6 | 479.6 |
| Total Amp Drawn (A) | 5.8 Max | 5.8 Max |
| Heat Output (BTU) | 1635.5 Max | 1635.5 Max |
| Acoustic Noise (dB) | 71.4 | 71.4 |

Specification

| | LM-XHC-25G | LM-XHC-40G |
|--------------------------------------|-----------------------------|-----------------------------|
| Support Subscription Tiers | All | All |
| Performance | | |
| Application throughput (Layer 4) | 57 Gbps | 77 Gbps |
| Application throughput (Layer 7) | 55 Gbps | 75 Gbps |
| Bulk Encryption | 25 Gbps | 25 Gbps |
| SSL TPS (2K Keys) | 40,000 | 40,000 |
| Concurrent Layer 4 Connections | 75,800,000 | 75,800,000 |
| Concurrent Layer 7 Connections | 525,000 | 525,000 |
| Layer 7 HTTP requests/sec | 1,250,000 | 1,250,000 |
| Layer 4 requests/sec | 2,600,000 | 2,600,000 |
| Layer 4 connections/sec | 825,000 | 825,000 |
| Hardware Platform | | |
| CPU | 2x 3.0GHz, 12C/24T | 2x 3.0GHz, 12C/24T |
| Memory (RAM Size) | 64GB | 64GB |
| Storage | 2 x 1TB HDD (RAID 1) | 2 x 1TB HDD (RAID 1) |
| Gigabit Ethernet Ports | 2 | 2 |
| 10 Gigabit Ports (SFP+) | 8 | 8 |
| 25 Gigabit Ports (SFP28) | 4 | 0 |
| 40 Gigabit Ports (QSFP+) | 0 | 4 |
| 100 Gigabit Ports (QSFP28) | 0 | 0 |
| VGA Ports | 1 | 1 |
| Console Ports | 1 RJ45 | 1 RJ45 |
| Rack Size | 2U | 2U |
| Dimensions (with Bezel) | 437 x 570 x 88mm | 437 x 570 x 88mm |
| Weight | 35.2lbs / 16kg | 35.2lbs / 16kg |
| Storage Temperature | -4 to 167 °F (-20 to 75 °C) | -4 to 167 °F (-20 to 75 °C) |
| Operating Temperature | 32 to 104 °F (0 to 40 °C) | 32 to 104 °F (0 to 40 °C) |
| Storage Humidity | 10% to 90% non-condensing | 10% to 90% non-condensing |
| Operating Relative Humidity | 10% to 90% non-condensing | 10% to 90% non-condensing |
| Max Altitude in Operational Mode | 16,404 feet (5,000 meters) | 16,404 feet (5,000 meters) |
| Max Altitude in Non-Operational Mode | 30,000 feet (9,144 meters) | 30,000 feet (9,144 meters) |
| Input Voltage and Frequency | 100-240VAC, 50-60Hz | 100-240VAC, 50-60Hz |
| Hot-Swap, Redundant Power Supply | Yes | Yes |
| Max power supply (W) | 2 x 700 | 2 x 700 |
| Average Power Consumption (W) | 479.6 | 479.6 |
| Total Amp Drawn (A) | 5.8 Max | 5.8 Max |
| Heat Output (BTU) | 1635.5 Max | 1635.5 Max |
| Acoustic Noise (dB) | 71.4 | 71.4 |

Specification

| | LM-XHC-100G |
|--------------------------------------|-----------------------------|
| Support Subscription Tiers | All |
| Performance | |
| Application throughput (Layer 4) | 91 Gbps |
| Application throughput (Layer 7) | 90 Gbps |
| Bulk Encryption | 25 Gbps |
| SSL TPS (2K Keys) | 40,000 |
| Concurrent Layer 4 Connections | 75,800,000 |
| Concurrent Layer 7 Connections | 525,000 |
| Layer 7 HTTP requests/sec | 1,250,000 |
| Layer 4 requests/sec | 2,600,000 |
| Layer 4 connections/sec | 825,000 |
| Hardware Platform | |
| CPU | 2x 3.0GHz, 12C/24T |
| Memory (RAM Size) | 64GB |
| Storage | 2 x 1TB HDD (RAID 1) |
| Gigabit Ethernet Ports | 2 |
| 10 Gigabit Ports (SFP+) | 8 |
| 25 Gigabit Ports (SFP28) | 0 |
| 40 Gigabit Ports (QSFP+) | 0 |
| 100 Gigabit Ports (QSFP28) | 2 |
| VGA Ports | 1 |
| Console Ports | 1 RJ45 |
| Rack Size | 2U |
| Dimensions (with Bezel) | 437 x 570 x 88mm |
| Weight | 35.2lbs / 16kg |
| Storage Temperature | -4 to 167 °F (-20 to 75 °C) |
| Operating Temperature | 32 to 104 °F (0 to 40 °C) |
| Storage Humidity | 10% to 90% non-condensing |
| Operating Relative Humidity | 10% to 90% non-condensing |
| Max Altitude in Operational Mode | 16,404 feet (5,000 meters) |
| Max Altitude in Non-Operational Mode | 30,000 feet (9,144 meters) |
| Input Voltage and Frequency | 100-240VAC, 50-60Hz |
| Hot-Swap, Redundant Power Supply | Yes |
| Max power supply (W) | 2 x 700 |
| Average Power Consumption (W) | 479.6 |
| Total Amp Drawn (A) | 5.8 Max |
| Heat Output (BTU) | 1635.5 Max |
| Acoustic Noise (dB) | 71.4 |

Specifications – Multi-Tenant Platforms

| | LM-X15-MT | LM-X25-MT |
|--------------------------------------|--|-----------------------------|
| Support Subscription Tiers | All | All |
| Performance | | |
| Application throughput (Layer 4) | 5.2 Gbps | 8.2 Gbps |
| Application throughput (Layer 7) | 5.0 Gbps | 8.0 Gbps |
| Bulk Encryption | 3.0 Gbps | 3.0 Gbps |
| SSL TPS (2K Keys) | 4,000 | 4,000 |
| Recommended Tenants | 4 | 8 |
| Maximum Tenants | 16 | 16 |
| Concurrent Layer 4 Connections | 35,000,000 | 75,800,000 |
| Layer 4 requests/sec | 400,000 | 400,000 |
| Hardware Platform | | |
| CPU | 3.8GHz, 4C/8T | 2x 2.1GHz, 12C/24T |
| Memory (RAM Size) | 32GB | 64GB |
| Storage | 2 x 500GB HDD (RAID 1) | 2 x 1TB HDD (RAID 1) |
| Gigabit Ethernet Ports | 16 | 2 |
| 10 Gigabit Ports (SFP+) | 4 | 12 |
| VGA Ports | 1 | 1 |
| Console Ports | 1 RJ45 | 1 RJ45 |
| Rack Size | 1U | 2U |
| Dimensions | 430 x 480 x 44mm | 437 x 570 x 88mm |
| Weight | 26.01lbs / 11.8kg (16.9 x 18.8 x 1.7 in) | 35.2lbs / 16kg |
| (17.2 x 22.5 x 3.5 in) | | |
| Storage Temperature | -4 to 167 °F (-20 to 75 °C) | -4 to 167 °F (-20 to 75 °C) |
| Operating Temperature | 32 to 104 °F (0 to 40 °C) | 32 to 104 °F (0 to 40 °C) |
| Storage Humidity | 10% to 90% non-condensing | 10% to 90% non-condensing |
| Operating Relative Humidity | 10% to 90% non-condensing | 10% to 90% non-condensing |
| Max Altitude in Operational Mode | 16,404 feet (5,000 meters) | 16,404 feet (5,000 meters) |
| Max Altitude in Non-Operational Mode | 30,000 feet (9,144 meters) | 30,000 feet (9,144 meters) |
| Input Voltage and Frequency | 100-240VAC, 50-60Hz | 100-240VAC, 50-60Hz |
| Hot-Swap, Redundant Power Supply | Yes | Yes |
| Max power supply (W) | 2 x 450 | 2 x 700 |
| Average Power Consumption (W) | 165.27 | 479.6 |
| Total Amp Drawn (A) | 3.75 Max | 5.8 Max |
| Heat Output (BTU) | 563.57 Max | 1635.5 Max |
| Acoustic Noise (dB) | 62.7 | 71.4 |

Specifications – Multi-Tenant Platforms

| | LM-X40-MT |
|--------------------------------------|-----------------------------|
| Support Subscription Tiers | All |
| Performance | |
| Application throughput (Layer 4) | 11.2 Gbps |
| Application throughput (Layer 7) | 11 Gbps |
| Bulk Encryption | 4 Gbps |
| SSL TPS (2K Keys) | 6,000 |
| Recommended Tenants | 12 |
| Maximum Tenants | 24 |
| Concurrent Layer 4 Connections | 75,800,000 |
| Layer 4 requests/sec | 565,000 |
| Hardware Platform | |
| CPU | 2x 3.0GHz, 12C/24T |
| Memory (RAM Size) | 64GB |
| Storage | 2 x 1TB HDD (RAID 1) |
| Gigabit Ethernet Ports | 2 |
| 10 Gigabit Ports (SFP+) | 12 |
| VGA Ports | 1 |
| Console Ports | 1 RJ45 |
| Rack Size | 2U |
| Dimensions (with Bezel) | 437 x 570 x 88mm |
| Weight | 35.2lbs / 16kg |
| Storage Temperature | -4 to 167 °F (-20 to 75 °C) |
| Operating Temperature | 32 to 104 °F (0 to 40 °C) |
| Storage Humidity | 10% to 90% non-condensing |
| Operating Relative Humidity | 10% to 90% non-condensing |
| Max Altitude in Operational Mode | 16,404 feet (5,000 meters) |
| Max Altitude in Non-Operational Mode | 32,808 feet (10,000 meters) |
| Input Voltage and Frequency | 100-240VAC, 50-60Hz |
| Hot-Swap, Redundant Power Supply | Yes |
| Max power supply (W) | 2 x 700 |
| Average Power Consumption (W) | 479.6 |
| Total Amp Drawn (A) | 5.8 Max |
| Heat Output (BTU) | 1635.5 Max |
| Acoustic Noise (dB) | 71.4 |

Certification & Compliance

| | LM-X1 | LM-X3 |
|---|--|--|
| FIPS | FIPS 140-2 Level 1 NIST Cert 2473 | FIPS 140-2 Level 1 NIST Cert 2473 |
| Safety Agency Approval: (IEC, EN, CSA, UL) | IEC 62368-1:2014 2nd Ed. EN 62368-1:2014+A11:2017 AS/NZS 62368.1:2018 CAN/CSA C22.2 No. 62368-1-14 UL 62368-1 2nd Ed. | IEC 62368-1:2014 2nd Ed. EN 62368-1:2014+A11:2017 AS/NZS 62368.1:2018 CAN/CSA C22.2 No. 62368-1-14 UL 62368-1 2nd Ed. |
| Electromagnetic Compatibility (EMC) Certifications: (CE, UKCA, FCC, VCCI) | EN 55032:2015 +A11:2020, Class A EN 61000-3-2:2014, Class A EN IEC 61000-3-2:2019 +A1:2021 EN 61000-3-3:2013 +A2:2021 EN 55035:2017 +A11:2020 CISPR 32:2015+COR1:2016 AS/NZS CISPR 32:2015, Class A 47 CFR FCC Part 15 Subpart B, Class A ICES-003:2016 Issue 6, updated Apr.2019 Class A VCCI-CISPR 32:2016, Class A BS EN 55032:2015 +A11:2020, Class A BS EN 61000-3-2:2014, Class A BS EN IEC 61000-3-2:2019 +A1:2021, Class A BS EN 61000-3-3:2013 +A2:2021 BS EN 55035:2017+A11:2020 | EN 55032:2015 +A11:2020, Class A EN 61000-3-2:2014, Class A EN IEC 61000-3-2:2019 +A1:2021 EN 61000-3-3:2013 +A2:2021 EN 55035:2017 +A11:2020 CISPR 32:2015+COR1:2016 AS/NZS CISPR 32:2015, Class A 47 CFR FCC Part 15 Subpart B, Class A ICES-003:2016 Issue 6, updated Apr.2019 Class A VCCI-CISPR 32:2016, Class A BS EN 55032:2015 +A11:2020, Class A BS EN 61000-3-2:2014, Class A BS EN IEC 61000-3-2:2019 +A1:2021, Class A BS EN 61000-3-3:2013 +A2:2021 BS EN 55035:2017+A11:2020 |
| RoHS Compliant | Yes | Yes |
| WEEE Compliant | Yes | Yes |
| REACH Compliant | Yes | Yes |

| | LM-X15/LM-X15-MT | LM-X25/LM-X25-MT |
|---|--|--|
| FIPS | FIPS 140-2 Level 1 NIST Cert 24732473 | FIPS 140-2 Level 1 NIST Cert 2473 |
| Safety Agency Approval: (IEC, EN, CSA, UL) | IEC 62368-1:2014 2nd Ed. EN 62368-1:2014+A11:2017 AS/NZS 62368.1:2018 CAN/CSA C22.2 No. 62368-1-14 UL 62368-1 2nd Ed. | IEC 62368-1:2014 2nd Ed. EN 62368-1:2014+A11:2017 AS/NZS 62368.1:2018 CAN/CSA C22.2 No. 62368-1-14 UL 62368-1 2nd Ed. |
| Electromagnetic Compatibility (EMC) Certifications: (CE, UKCA, FCC, VCCI) | EN 55032:2015 +A11:2020, Class A EN 61000-3-2:2014, Class A EN IEC 61000-3-2:2019 +A1:2021 EN 61000-3-3:2013 +A2:2021 EN 55035:2017 +A11:2020 CISPR 32:2015+COR1:2016 AS/NZS CISPR 32:2015, Class A 47 CFR FCC Part 15 Subpart B, Class A ICES-003:2016 Issue 6, updated Apr.2019 Class A ANSI C63.4:2014 VCCI-CISPR 32:2016, Class A BS EN 55032:2015 +A11:2020, Class A BS EN 61000-3-2:2014, Class A BS EN IEC 61000-3-2:2019 +A1:2021 BS EN 61000-3-3:2013 +A2:2021 BS EN 55035:2017+A11:2020 | EN 55032:2015 +A11:2020, Class A EN 61000-3-2:2014, Class A EN IEC 61000-3-2:2019 +A1:2021 EN 61000-3-3:2013 +A2:2021 EN 55035:2017 +A11:2020 CISPR 32:2015+COR1:2016 AS/NZS CISPR 32:2015, Class A 47 CFR FCC Part 15 Subpart B, Class A ICES-003:2016 Issue 6, updated Apr.2019 Class A ANSI C63.4:2014 VCCI-CISPR 32:2016, Class A BS EN 55032:2015 +A11:2020, Class A BS EN 61000-3-2:2014, Class A BS EN IEC 61000-3-2:2019 +A1:2021 BS EN 61000-3-3:2013 +A2:2021 BS EN 55035:2017+A11:2020 |

| | | |
|-----------------|-----|-----|
| RoHS Compliant | Yes | Yes |
| WEEE Compliant | Yes | Yes |
| REACH Compliant | Yes | Yes |






Certification & Compliance

| | LM-X40/LM-X40-MT/LM-X40M | LM-XHC-25G/LM-XHC-40G/ LM- XHC-100G |
|--|--|--|
| FIPS | FIPS 140-2 Level 1 NIST Cert 2473 | FIPS 140-2 Level 1 NIST Cert 2473 |
| Safety Agency Approval: (IEC, EN, CSA, UL) | IEC 62368-1:2014 2nd Ed. EN 62368-1:2014+A11:2017 AS/NZS 62368.1:2018 CAN/CSA C22.2 No. 62368-1-14 UL 62368-1 2nd Ed. | IEC 62368-1:2014 2nd Ed. EN 62368-1:2014+A11:2017 AS/NZS 62368.1:2018 CAN/CSA C22.2 No. 62368-1-14 UL 62368-1 2nd Ed. |
| Electromagnetic Compatibility (EMC) Certifications: (CE, UKCA, FCC, VCCI) | EN 55032:2015 +A11:2020, Class A EN 61000-3-2:2014, Class A EN IEC 61000-3-2:2019 +A1:2021 EN 61000-3-3:2013 +A2:2021 EN 55035:2017 +A11:2020 CISPR 32:2015+COR1:2016 AS/NZS CISPR 32:2015, Class A 47 CFR FCC Part 15 Subpart B, Class A ICES-003:2016 Issue 6, updated Apr.2019 Class A ANSI C63.4:2014 VCCI-CISPR 32:2016, Class A BS EN 55032:2015 +A11:2020, Class A BS EN 61000-3-2:2014, Class A BS EN IEC 61000-3-2:2019 +A1:2021 BS EN 61000-3-3:2013 +A2:2021 BS EN 55035:2017+A11:2020 | EN 55032:2015 +A11:2020, Class A EN 61000-3-2:2014, Class A EN IEC 61000-3-2:2019 +A1:2021 EN 61000-3-3:2013 +A2:2021 EN 55035:2017 +A11:2020 CISPR 32:2015+COR1:2016 AS/NZS CISPR 32:2015, Class A 47 CFR FCC Part 15 Subpart B, Class A ICES-003:2016 Issue 6, updated Apr.2019 Class A ANSI C63.4:2014 VCCI-CISPR 32:2016, Class A BS EN 55032:2015 +A11:2020, Class A BS EN 61000-3-2:2014, Class A BS EN IEC 61000-3-2:2019 +A1:2021 BS EN 61000-3-3:2013 +A2:2021 BS EN 55035:2017+A11:2020 |
| RoHS Compliant | Yes | Yes |
| WEEE Compliant | Yes | Yes |
| REACH Compliant | Yes | Yes |

* All specifications are subject to change without prior notice.

About Progress

Dedicated to propelling business forward in a technology-driven world, [Progress](#) (NASDAQ: PRGS) helps businesses drive faster cycles of innovation, fuel momentum and accelerate their path to success. As the trusted provider of the best products to develop, deploy and manage high-impact applications, Progress enables customers to build the applications and experiences they need, deploy where and how they want and manage it all safely and securely. Hundreds of thousands of enterprises, including 1,700 software companies and 3.5 million developers, depend on Progress to achieve their goals—with confidence. Learn more at www.progress.com

 /progresssw
 /progresssw
 /progresssw
 /progress-software
 /progress_sw_

2022 Progress Software Corporation and/or its subsidiaries or affiliates. All rights reserved. Rev 2022/06 RITM0163253