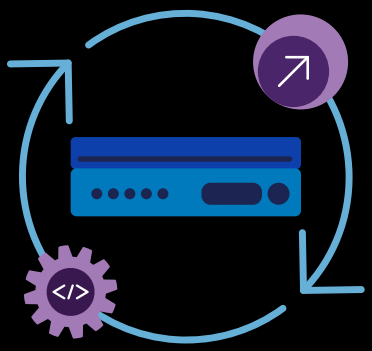


Data Sheet

F5 rSeries Appliance

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Automate and Future-Proof Your Infrastructure with the F5 rSeries Platform

The next-generation Application Delivery Controller (ADC) solution, F5 rSeries, bridges the gap between traditional and modern infrastructures with a rearchitected, API-first platform designed to meet the needs of your traditional and emerging applications. The new F5 rSeries delivers unprecedented levels of performance, a fully automatable architecture, and the highest reliability, security, and access control for your critical applications. You can reduce time-to-market, consolidate your infrastructure and secure critical data at scale while lowering total cost of ownership (TCO) and future-proofing your application infrastructure.

KEY BENEFITS

Future-proof your environment
Future-proof your IT infrastructure for the long-term with frictionless migration, flexible licensing and high performance to scale your capacity as you grow.

Obtain the lowest TCO
Reduce TCO and the infrastructure footprint by consolidating app and security services on a unified, high-performance platform.

Accelerate deployment with automation
Decrease time spent on manual tasks with rSeries' fully automatable platform design. Rapidly onboard, configure, and deploy F5 application services via simple, yet powerful declarative interfaces with F5 Automation Toolchain.

Secure applications
Deliver the SSL capacity required to protect critical data—including enhanced offload of elliptical curve cryptography (ECC) processing to hardware—enabling forward secrecy scaling. Deliver the most effective protection with integrated, one-pass, full stack (L3–L7) security, high-capacity distributed denial-of-service (DDoS) mitigation, contextual access management, and more.

Enhance your performance
Scale up to two times over previous platforms and manage unpredictable performance requirements. In addition, avoid CPU exhaustion for critical use cases like DDoS protection or UDP traffic processing. F5 rSeries leverages larger, modern FPGA technology to enable more efficient CPU resource utilization, delivering unprecedented performance and greater scalability.[1]

STANDARDIZE YOUR APP DELIVERY SERVICES

F5 appliances simplify your network and reduce TCO by offloading servers, providing a consistent set of comprehensive application services, and consolidating devices – saving management, power, space, and cooling costs in the data center. The massive performance and scalability of the new F5 rSeries appliance reduces the number of ADCs needed to deliver even the most demanding applications. By offloading computationally intense processes, you can significantly reduce the number of application servers needed.

UNMATCHED PERFORMANCE FOR CRITICAL APPLICATIONS

Application traffic is growing exponentially, driven by the ongoing growth of remote workforces, increasing numbers of applications, video streaming, and IoT, and increasing pressure on global IT infrastructure resources to deliver unprecedented performance and scalability.

Additionally, encrypted SSL/TLS traffic now represents the vast majority of total application traffic, adding additional strain on IT resources that can't effectively manage the increased load. F5's rSeries appliances offer up to 2x the level of performance as compared to previous generations, enabling more efficient CPU resource utilization, higher scalability, and industry-leading SSL/TLS processing scale to manage and control the increasing amount of application traffic.

THE ADVANTAGES OF AN F5 ADC SYSTEM

The F5 rSeries platform leverages a modern hardware and software design to balance the need for performance, scalability, agility, and automation. The F5® TMOS® operating system provides total visibility, flexibility, and control across all application delivery services. With TMOS, organizations can intelligently adapt to the diverse and evolving requirements of applications and networks.

F5 rSeries also leverages a new architecture and hardware with larger, field-programmable gate arrays (FPGAs) and the latest Intel® processing for CPU.[1] The newer generation Intel chipsets provide more modern SSL cipher support and can offload elliptical curve cryptography (ECC) based ciphers in hardware. FPGA technology, tightly integrated with the next-generation F5 operating system technology and platform layer software, enables high- performance capabilities.[1]

rSeries includes:

- Up to 400K TPS SSL and compression offload.
- Reduce loads on software by enabling up to 195 Gbps of L4/L7 throughput.
- Hardware-accelerated SYN flood protection ensures if one application is under attack, others are not affected.
- Protection from more than 100 attack vectors, such as denial-of-service (DoS) and DDoS attacks, hardware detection, and mitigation.
- SSL orchestration supports Layer 3 deployment topologies on all rSeries platforms and Layer 2 in-line service on mid and high-end platforms.
- Support for F5 IP Intelligence Services, with denylist, allowlist, and temporary rejection capabilities.

Other unique or patented hardware and software innovations equip the platform with unmatched capabilities, including:

- Best-in-market SSL performance accelerates SSL/TLS adoption by offloading costly SSL processing and speeding up key exchange and bulk encryption.
- Industry-leading encryption up to 235K TPS P-256 from increased SSL FPGAs from hardware acceleration of ECC ciphers.
- Cost-effective offload of traffic compression processing improves page load times and reduces bandwidth utilization from maximum hardware compression up to 100 Gbps, a 138% increase over previous platforms.
- Enterprise-class solid-state drive (SSD) technology on select F5 platforms improves performance and reliability, saves power, and reduces heat generation and noise.
- Efficiency features include 80 Plus Platinum certified power supplies as well as front panel touchscreen LCD management, remote boot and multi-boot support, and USB support.

INTRODUCING BIG-IP NEXT: MODERN APPLICATION DELIVERY ON RSERIES

F5's next-gen software, F5 BIG-IP® Next™, leverages powerful declarative APIs to make it faster and easier for DevOps, NetOps, and other BIG-IP-reliant teams to manage and automate their BIG-IP deployments. The completely rearchitected software layer and modern framework provide the basis for significantly improved control plane scale and performance, reduced cloud footprint for lower operational costs, and rapid instance upgrades.

Carrying forward the comprehensive suite of advanced BIG-IP functionality developed over the past 20 years, BIG-IP Next will continue to deliver everything from application security and access controls to local and global traffic management—and will be available across the same breadth of deployment and consumption models as its predecessor.

When fully mature, BIG-IP Next will offer the following benefits on rSeries:

- Accelerate time-to-market using a highly automatable, API-first design that enables automation-driven device onboarding and seamless application services configuration via declarative APIs.
- Reduce cloud total cost of ownership with optimized, right-sized instances that reduce annual spending and a containerized core that splits feature modules into individual units, permitting teams to select, choose, and deploy only the functions required.
- Handle extensive application portfolios and complex, resource-intensive app configurations thanks to a highly scalable control plane.
- Reduce application downtime with rapid, hitless upgrades that can be performed while maintaining all existing operations and without disrupting traffic flows or diminishing application availability.
- Maintain a cutting-edge security posture with accelerated and incremental feature delivery software releases every three months–twice as often as TMOS feature releases.
- Continue using the advanced suite of app services and modules you know and trust, as the majority of capabilities are carried forward with BIG-IP Next.

GAIN FLEXIBILITY WITH MULTI-TENANCY

Virtualization and multi-tenant architectures are often implemented to address business and topological requirements, such as being able to consolidate services and acquire or merge existing networks. Multi-tenancy enables customers to host many different F5® BIG-IP® tenants on the same appliance, which may vary in terms of supported versions depending on the needs of particular applications or business requirements. Each tenant can be independently upgraded or patched without impacting other tenants. In addition, multi-tenancy delivers full tenant isolation and failure—independent of traffic, data, and administrative access—for unmatched tenant isolation.

Traditionally, F5's Virtual Clustered Multiprocessing (vCMP) technology gave organizations a virtualization strategy for application delivery and isolating multi-tenant environments on F5 hardware platforms. F5 rSeries continues to support—and improve on—the vCMP technology that benefits many customers. F5 rSeries supports flexible, multi-tenancy options across system resources and enables even more multi-tenancy density than was previously achievable with BIG-IP® iSeries®. This allows customers to achieve greater ROI on their new F5 hardware investments by allocating system resources more effectively.

A MODERN PLATFORM ARCHITECTURE DESIGN

F5 rSeries relies on a F5OS (a new Kubernetes-based platform layer) that's fully integrated with F5's TMOS software, aligning with your modern architecture plans. Going to a microservice-based platform layer allows rSeries to provide new and exciting features that were not possible in previous generations of F5® BIG-IP® platforms. This layer powers the new platform and is abstracted through F5OS interfaces so you can manage it via familiar CLI, GUI, and API interfaces. This means you can simultaneously run tenants with the current and next generation of BIG-IP software with more modern microservice-based BIG-IP software that will be introduced in the future. rSeries is more aligned to modern architectures, which allows you to future-proof your deployments and environments.

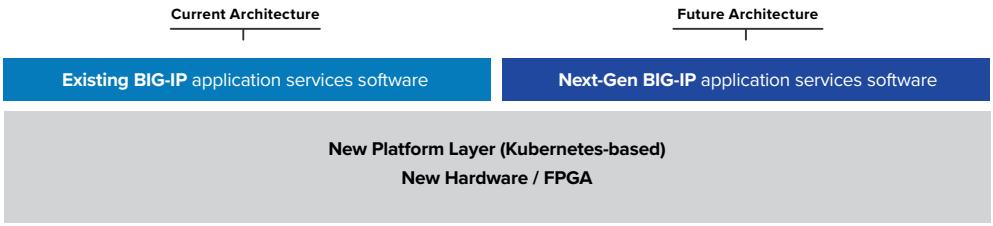


Figure 1: F5 rSeries Architecture.

PURPOSE-BUILT FOR AUTOMATION

With the demands of your business, you're under pressure to deploy and scale application services faster than ever before. Now, you don't need to implement software-only infrastructure to take advantage of CI/CD toolset integration, declarative APIs, and telemetry-based implementations. With its API-first architecture, F5 rSeries provides a fully automatable system that can deliver the agility you need today.

With rSeries, you can take advantage of F5's Automation Toolchain for F5 TMOS based BIG-IP software. Automation Toolchain offers a way to simplify and streamline your F5 portfolio with simple, yet powerful declarative interfaces that minimize F5 knowledge requirements, reduce errors, increase deployment velocity, and make workflows more repeatable. Automation Toolchain is comprised of a unified set of REST API endpoints built using human-readable JSON source of truth documents installed on BIG-IP or on BIG-IQ in any environment that supports those solutions. The Automation Toolchain makes it faster, easier, and more programmatic to configure and deploy F5 application delivery and security services.

Programmability

Enabling automation and orchestration is key to achieving the benefits of cloud and software-defined architectures and to scaling application services on demand. F5 platforms offer many ways to program the application services fabric and network, enabling organizations to automate deployment, react to events in real time, and easily integrate into orchestration systems.

F5 iRules® scripting has long provided granular traffic control and visibility, enabling customization, rapid response to code errors and security vulnerabilities, and support for new protocols. F5 rSeries and BIG-IP tenants are fully automatable with iRules and AS3. F5 iRules LX™ lowers costs and speeds deployments by extending iRules to JavaScript developers and providing access to, and easier integration with, over 300,000 community Node.js packages.

In addition, F5 iApps® and F5 Application Services Templates (FAST) templates are powerful tools that enable you to automate deployment and configuration of enterprise application services as a whole, rather than individually managing configuration and objects. iApps and FAST give you greater visibility into and control over application delivery—and helps you deploy in hours rather than weeks.

F5 iControl® REST APIs and SDKs integrate with leading open source and commercial orchestration systems, VMware, OpenStack clouds, and configuration management and automation systems such as Puppet, Chef, Ansible, and Terraform.

BIG-IQ Centralized Management

F5 BIG-IQ® Centralized Management is F5's management and orchestration platform for BIG-IP. It provides a central point of control for F5 physical and virtual devices and the app delivery and security services that run on them. BIG-IQ Centralized Management is available as a virtual edition. It simplifies management, helps ensure compliance, and gives you the visibility and reporting you need to troubleshoot and respond to issues and security attacks.

BIG-IQ manages policies, licenses, SSL certificates, images, and configurations for F5 devices and the following BIG-IP software modules:

- BIG-IP® Local Traffic Manager™ (LTM)
- BIG-IP® Advanced Firewall Manager™ (AFM)
- BIG-IP® Access Policy Manager® (APM)
- BIG-IP® DNS
- BIG-IP® Advanced Web Application Firewall® (WAF)
- BIG-IP® SSL Orchestrator®
- BIG-IP® DDoS Hybrid Defender®
- F5 Secure Web Gateway Services®

BIG-IQ Centralized Management supports rSeries appliances, BIG-IP iSeries appliances, VELOS and VIPRION chassis/blades, and BIG-IP virtual editions (VE), whether they're running in private or public cloud environments. This solution is ideal for organizations that require central management of F5 devices and modules, license management of BIG-IP VEs, or central reporting and alerting on application availability, performance, and security.

FIPS COMPLIANCE AT SCALE

The Federal Information Processing Standards (FIPS) specify requirements for cryptographic modules. FIPS compliance is required for many government agencies and industries, such as financial services and healthcare, that demand the highest standards in information, application, and data security. F5 offers a broad range of FIPS-validated hardware appliances that support a FIPS 140-2 Level 2 and FIPS 140-3 Level 2 implementations for RSA cryptographic key generation, use, and protection when running validated versions of BIG-IP TMOS. Current Validations and those Under Test can be viewed here in the "F5 FIPS Cryptographic Modules" section: https://www.f5.com/company/certifications.

For additional protection, the F5 r10920-DF and r5920-DF ship with an embedded 3rd Party FIPS grade Internal HSM (PCI card), tested by the Marvell company at FIPS 140-3 Level 3 to ensure compliance and operate in a FIPS Ready mode. F5 Hardware FIPS appliances include integrated HSMs that have tamper-evident seals with a hardened-epoxy cover which, if removed, will render the card useless.

Service Provider Solutions

Globally, service providers are investing in 5G networks and in trying to secure both consumer and business markets. Increased throughput and reduced latency are the key drivers for the network edge, particularly for video applications that are straining today's networks. Service providers also need to develop new consumption models and revenue-generating services to stay competitive. A flexible, secure, high-performance solution is required. The rSeries provides hardware-assisted L4 offload for high-performance tunneling protocols (VXLAN, IPSec, GTP, GRE, and others) and for high-performance security services to protect public-facing websites and data center applications from distributed, multi-layer cyberattacks through AFM. The rSeries also offers hardware-assisted DDoS mitigation of DDoS vectors, per-endpoint DoS protection, wildcard VS SYN cookie protection, and zone-based DDoS support. BIG-IP CGNAT eases IPv6 migration and improves network scalability with IPv4 address management. A combined CGNAT and BIG-IP Policy Enforcement Manager (PEM) enables a secure, subscriber-aware network firewall that masks subscriber addresses, and can be part of an optimized S/Gi-LAN/N6 solution. PEM can create differentiated services, manage traffic by leveraging subscriber and application awareness, and implement enforcement policies.

MIGRATING TO F5 RSERIES

F5's migration tool, Journeys, helps users adopt newer platforms like rSeries by providing a frictionless migration experience. It allows users to migrate from any source platform (F5 chassis, appliance, or VE) running BIG-IP software to the platform of their choice. The tool assists in checking feature compatibility issues between different platforms and software versions, identifying and troubleshooting migration issues, and reducing overall complexity and time spent on migration. It's a single tool with an easy-to-use GUI interface that helps to migrate all the L4–L7 customer configurations with minimal disruption to a customer's existing operational procedures. This tool also provides post-migration validation metrics in terms of the memory footprint, cluster status, and configuration object count, for improved visibility into the migration status and reduced runtime issues.





SPECIFICATIONS	r10900	r10800
Intelligent Traffic Processing:	L7 requests per second: 6.6M L4 connections per second: 2.5M L4 HTTP requests per second: 37M Maximum L4 concurrent connections: 180M Throughput: 190 Gbps/190 Gbps L4/L7	L7 requests per second: 5.5M L4 connections per second: 2.1M L4 HTTP requests per second: 36M Maximum L4 concurrent connections: 160M Throughput: 190 Gbps/145 Gbps L4/L7
Hardware Offload SSL/TLS:	200K TPS (RSA 2k keys) 140K TPS (ECDHE-ECDSA P-256) 110K TPS (ECDHE P-256-RSA 2k) 95 Gbps bulk encryption	150K TPS (RSA 2k keys) 110K TPS (ECDHE-ECDSA P-256) 110K TPS (ECDHE P-256-RSA 2k) 80 Gbps bulk encryption
Hardware Compression:	90 Gbps	80 Gbps
Hardware DDoS Protection:	160M SYN Cookies per second	160M SYN Cookies per second
Software Architecture:	64-bit TMOS 64-bit F5OS	64-bit TMOS 64-bit F5OS
Multi-Tenancy:	Up to 36	Up to 28
Processor:	12 vCPU's Reserved for F5OS, and 36 vCPU's Available for Tenancy.	12 vCPU's Reserved for F5OS, and 28 vCPU's Available for Tenancy.
Memory:	256 GB DDR	256 GB DDR
Hard Drive:	2x 1TB U.2 Enterprise-class SSD (RAID 1 Mirrored)	2x 1TB U.2 Enterprise-class SSD (RAID1 Mirrored)
Management Ports:	1x 1000BASE-T, 1x USB 3.0, 1x serial console	1x 1000BASE-T, 1x USB 3.0, 1x serial console
100/40 Gigabit Fiber Ports:	4 x 100G/40G QSFP28/QSFP+ ports	4 x 100G/40G QSFP28/QSFP+ ports
25/10 Gigabit Fiber Ports:	16 x 25G/10G SFP28/SFP+ ports	16 x 25G/10G SFP28/SFP+ ports
Power Supply:	2 x 1200 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional	2 x 1200 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional
Typical Consumption:	680W (dual power supply, 48V DC or 110V AC input)	680W (dual power supply, 48V DC or 110V AC input)
Input Voltage / Typical Heat generated:	Dual Power supply 110 VAC input: 2325 BTU/hour 230 VAC input: 2290 BTU/hour	Dual Power supply 110 VAC input: 2325 BTU/hour 230 VAC input: 2290 BTU/hour
Dimensions:	H: 1.72 inches (4.37 cm) x W: 17.1 inches (44.20 cm) x D: 30.6 inches (77.72 cm) (per unit) 1U industry standard rack-mount chassis	H: 1.72 inches (4.37 cm) x W: 17.1 inches (44.20 cm) x D: 30.6 inches (77.72 cm) (per unit) 1U industry standard rack-mount chassis
Weight:	36.0 pounds (16.33 kg) with two power supply units (PSUs) (per unit)	36.0 pounds (16.33 kg) with two power supply units (PSUs) (per unit)
Operating Temperature:	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)
Operational Relative Humidity:	5% to 85% (40 C) non-condensing	5% to 85% (40 C) non-condensing
Hardware Certification Model	r10000	r10000
Safety Agency Approval:	ANSI/UL 60950-1-2014 CSA 60950-1-07, including A1:2011+A2:2014 IEC 60950-1:2005, A1:2009+A2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 (Second Edition) EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, UL 62368-1, 2nd edition	ANSI/UL 60950-1-2014 CSA 60950-1-07, including A1:2011+A2:2014 IEC 60950-1:2005, A1:2009+A2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 (Second Edition) EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, UL 62368-1, 2nd edition
Certifications / Susceptibility Standards:	FCC Class A (Part 15), IC Class A; VCCI Class A EN 55032:2012/AC:2013 Class A EN 55035:2017 EN 300 386 V1.6.1 (2012) **NEBS Level 3 compliant	FCC Class A (Part 15), IC Class A; VCCI Class A EN 55032:2012/AC:2013 Class A EN 55035:2017 EN 300 386 V1.6.1 (2012) **NEBS Level 3 compliant

*Requires using adjacent QSFP28 ports at the same speed (100G/100G or 40G/40G). 100/40G ports do not support breakout cables.
Notes: Performance-related numbers are based on local traffic management services only and are subject to change. Only optics provided by F5 are supported.
**Available as a factory option at the time of purchase or as a field upgrade after purchase.





SPECIFICATIONS	r10600	r5900
Intelligent Traffic Processing:	L7 requests per second: 4.5M L4 connections per second: 1.9M L4 HTTP requests per second: 36M Maximum L4 concurrent connections: 145M Throughput: 190 Gbps/125 Gbps L4/L7	L7 requests per second: 4.3M L4 connections per second: 1.8M L4 HTTP requests per second: 18M Maximum L4 concurrent connections: 100M Throughput: 95 Gbps/95 Gbps L4/L7
Hardware Offload SSL/TLS:	115K TPS (RSA 2k keys) 90K TPS (ECDHE-ECDSA P-256) 90K TPS (ECDHE P-256-RSA-2k) 75 Gbps bulk encryption	100K TPS (RSA 2k keys) 70K TPS (ECDHE-ECDSA P-256) 55K TPS (ECDHE P-256-RSA-2k) 50 Gbps bulk encryption
Hardware Compression:	80 Gbps	50 Gbps
Hardware DDoS Protection:	160M SYN Cookies per second	80M SYN Cookies per second
Software Architecture:	64-bit TMOS 64-bit F5OS	64-bit TMOS 64-bit F5OS
Multi-Tenancy:	Up to 24	Up to 26
Processor:	12 vCPU's Reserved for F5OS, and 24 vCPU's Available for Tenancy.	6 vCPU's Reserved for F5OS, and 26 vCPU's Available for Tenancy.
Memory:	256 GB DDR	128 GB DDR
Hard Drive:	2x 1TB U.2 Enterprise-class SSD (RAID1 Mirrored)	1x 1TB M.2 SSD
Management Ports:	1x 1000BASE-T 1x USB 3.0, 1x serial console	1x 1000BASE-T, 1x USB 3.0, 1x serial console
100/40 Gigabit Fiber Ports:	4 x 100G/40G QSFP28/QSFP+ ports	2 x 100G/40G QSFP28/QSFP+ ports
25/10 Gigabit Fiber Ports:	16 x 25G/10G SFP28/SFP+ ports	8 x 25G/10G SFP28/SFP+ ports
Power Supply:	2 x 1200 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional	1 x 650 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional
Typical Consumption:	680W (dual power supply, 48V DC or 110V AC input)	425W (single power supply, 48V DC or 110V AC input)
Input Voltage / Typical Heat generated:	Dual Power supply 110 VAC input: 2325 BTU/hour 230 VAC input: 2290 BTU/hour	Single Power supply 110 VAC input: 1455 BTU/hour 230 VAC input: 1420 BTU/hour
Dimensions:	H: 1.72 inches (4.37 cm) x W: 17.1 inches (44.20 cm) x D: 30.6 inches (77.72 cm) (per unit) 1U industry standard rack-mount chassis	H: 1.72 inches (4.37 cm) x W: 17.1 inches (44.20 cm) x D: 30.6 inches (77.72 cm) (per unit) 1U industry standard rack-mount chassis
Weight:	36.0 pounds (16.33 kg) with two power supply units (PSUs) (per unit)	36.0 pounds (16.33 kg) with two power supply units (PSUs) (per unit)
Operating Temperature:	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)
Operational Relative Humidity:	5% to 85% (40 C) non-condensing	5% to 85% (40 C) non-condensing
Hardware Certification Model	r10000	r5000
Safety Agency Approval:	ANSI/UL 60950-1-2014 CSA 60950-1-07, including A1:2011+A2:2014 IEC 60950-1:2005, A1:2009+A2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 (Second Edition) EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, UL 62368-1, 2nd edition	ANSI/UL 60950-1-2014 CSA 60950-1-07, including A1:2011+A2:2014 IEC 60950-1:2005, A1:2009+A2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 (Second Edition) EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, UL 62368-1, 2nd edition
Certifications / Susceptibility Standards:	FCC Class A (Part 15), IC Class A; VCCI Class A EN 55032:2012/AC:2013 Class A EN 55035:2017 EN 300 386 V1.6.1 (2012) **NEBS Level 3 compliant	FCC Class A (Part 15), IC Class A; VCCI Class A EN 55032:2012/AC:2013 Class A EN 55035:2017 EN 300 386 V1.6.1 (2012) **NEBS Level 3 compliant

*Requires using adjacent QSFP28 ports at the same speed (100G/100G or 40G/40G). 100/40G ports do not support breakout cables.
Notes: Performance-related numbers are based on local traffic management services only and are subject to change. Only optics provided by F5 are supported.
**Available as a factory option at the time of purchase or as a field upgrade after purchase.





SPECIFICATIONS	r5800	r5600
Intelligent Traffic Processing:	L7 requests per second: 3.3M L4 connections per second: 1.4M L4 HTTP requests per second: 18M Maximum L4 concurrent connections: 85M Throughput: 95 Gbps/85 Gbps L4/L7	L7 requests per second: 2.5M L4 connections per second: 1M L4 HTTP requests per second: 18M Maximum L4 concurrent connections: 75M Throughput: 95 Gbps/60 Gbps L4/L7
Hardware Offload SSL/TLS:	80K TPS (2K SSL TPS) 50K TPS (ECDHE-ECDSA P-256 TPS) 50K TPS (ECDHE P-256-RSA-2k TPS) 45 Gbps bulk encryption	60K TPS (2K SSL TPS) 30K TPS (ECDHE-ECDSA P-256 TPS) 30K TPS (ECDHE P-256-RSA-2k TPS) 35 Gbps bulk encryption
Hardware Compression:	40 Gbps	35 Gbps
Hardware DDoS Protection:	80M SYN Cookies per second	80M SYN Cookies per second
Software Architecture:	64-bit TMOS 64-bit F5OS	64-bit TMOS 64-bit F5OS
Multi-Tenancy:	Up to 18	Up to 8
Processor:	6 vCPU's Reserved for F5OS, and 18 vCPU's Available for Tenancy.	6 vCPU's Reserved for F5OS, and 12 vCPU's Available for Tenancy.
Memory:	128 GB DDR	128 GB DDR
Hard Drive:	1x 1TB M.2 SSD	1x 1TB M.2 SSD
Management Ports:	1x 1000BASE-T 1x USB 3.0, 1x serial console	1x 1000BASE-T, 1x USB 3.0, 1x serial console
100/40 Gigabit Fiber Ports:	2 x 100G/40G QSFP+/QSFP28 ports	2 x 100G/40G QSFP+/QSFP28 ports
25/10 Gigabit Fiber Ports:	8 x 25G/10G SFP28/SFP+ ports	8 x 25G/10G SFP28/SFP+ ports
Power Supply:	1 x 650 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional	1 x 650 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional
Typical Consumption:	425W (single power supply, 48V DC or 110V AC input)	425W (single power supply, 48V DC or 110V AC input)
Input Voltage / Typical Heat generated:	Single Power supply 110 VAC input: 1455 BTU/hour 230 VAC input: 1420 BTU/hour	Single Power supply 110 VAC input: 1455 BTU/hour 230 VAC input: 1420 BTU/hour
Dimensions:	H: 1.72 inches (4.37 cm) x W: 17.1 inches (44.20 cm) x D: 30.6 inches (77.72 cm) (per unit) 1U industry standard rack-mount chassis	H: 1.72 inches (4.37 cm) x W: 17.1 inches (44.20 cm) x D: 30.6 inches (77.72 cm) (per unit) 1U industry standard rack-mount chassis
Weight:	36.0 pounds (16.33 kg) with two power supply units (PSUs) (per unit)	36.0 pounds (16.33 kg) with two power supply units (PSUs) (per unit)
Operating Temperature:	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)
Operational Relative Humidity:	5% to 85% (40 C) non-condensing	5% to 85% (40 C) non-condensing
Hardware Certification Model	r5000	r5000
Safety Agency Approval:	ANSI/UL 60950-1-2014 CSA 60950-1-07, including A1:2011+A2:2014 IEC 60950-1:2005, A1:2009+A2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 (Second Edition) EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, UL 62368-1, 2nd edition	ANSI/UL 60950-1-2014 CSA 60950-1-07, including A1:2011+A2:2014 IEC 60950-1:2005, A1:2009+A2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 (Second Edition) EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, UL 62368-1, 2nd edition
Certifications / Susceptibility Standards:	FCC Class A (Part 15), IC Class A; VCCI Class A EN 55032:2012/AC:2013 Class A EN 55035:2017 EN 300 386 V1.6.1 (2012) **NEBS Level 3 compliant	FCC Class A (Part 15), IC Class A; VCCI Class A EN 55032:2012/AC:2013 Class A EN 55035:2017 EN 300 386 V1.6.1 (2012) **NEBS Level 3 compliant

*Requires using adjacent QSFP28 ports at the same speed (100G/100G or 40G/40G). 100/40G ports do not support breakout cables.
Notes: Performance-related numbers are based on local traffic management services only and are subject to change. Only optics provided by F5 are supported.
**Available as a factory option at the time of purchase or as a field upgrade after purchase.





SPECIFICATIONS	r4800	r4600
Intelligent Traffic Processing:	L7 requests per second: 1.8M L4 connections per second: 750K L4 HTTP requests per second: 3.5M Maximum L4 concurrent connections: 38M Throughput: 50 Gbps/40 Gbps L4/L7	L7 requests per second: 1.3M L4 connections per second: 500K L4 HTTP requests per second: 2.5M Maximum L4 concurrent connections: 38M Throughput: 40 Gbps/30 Gbps L4/L7
Hardware Offload SSL/TLS:	45K TPS (2K SSL TPS) 20K TPS (ECDHE-ECDSA P-256 TPS) 20K TPS (ECDHE P-256-RSA 2k TPS) 25 Gbps bulk encryption	30K TPS (2K SSL TPS) 14K TPS (ECDHE-ECDSA P-256 TPS) 14K TPS (ECDHE P-256-RSA 2k TPS) 20 Gbps bulk encryption
Hardware Compression:	30 Gbps (Hardware)	20 Gbps (Software)
Software Architecture:	64-bit TMOS 64-bit F5OS	64-bit TMOS 64-bit F5OS
Multi-Tenancy:	Up to 4	Up to 2
Processor:	1 x 16-Core Intel® Atom® processor (16 CPUs available for Tenancy)	1 x 16-Core Intel® Atom® processor (12 CPUs available for Tenancy)
Memory:	64 GB DDR	64 GB DDR
Hard Drive:	480GB M.2 SSD	480GB M.2 SSD
Management Ports:	1x 1000BASE-T 1x USB 3.0, 1x serial console	1x 1000BASE-T, 1x USB 3.0, 1x serial console
10G/1G Gigabit Copper Ports:	4 x 10G/1G RJ45 Ports	4 x 10G/1G RJ45 Ports
25/10 Gigabit Fiber Ports:	4 x 25G/10G/1G SFP+/SFP28/SFP ports	4 x 25G/10G/1G SFP+/SFP28/SFP ports
Power Supply:	1 x 250 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional	1 x 250 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional
Typical Consumption:	105W (single power supply, 48V DC or 110V AC input)	105W (single power supply, 48V DC or 110V AC input)
Input Voltage / Typical Heat generated:	Single Power supply 110 VAC input: 360 BTU/hour 230 VAC input: 345 BTU/hour	Single Power supply 110 VAC input: 360 BTU/hour 230 VAC input: 345 BTU/hour
Dimensions:	H: 1.74 inches (4.37 cm) x W: 17.1 inches (Standard rack) x D: 16.9 inches (42.9 cm). 1U industry standard rack-mount chassis	H: 1.74 inches (4.37 cm) x W: 17.1 inches (Standard rack) x D: 16.9 inches (42.9 cm). 1U industry standard rack-mount chassis
Weight:	20.0 pounds (9.07 kg) with one power supply units (PSUs) (per unit)	20.0 pounds (9.07 kg) with one power supply units (PSUs) (per unit)
Operating Temperature:	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)
Operational Relative Humidity:	5% to 85% (40 C) non-condensing	5% to 85% (40 C) non-condensing
Hardware Certification Model	r4000	r4000
Safety Agency Approval:	ANSI/UL 60950-1-2014 CSA 60950-1-07, A1:2011+A2:2014 IEC 60950-1:2005, IEC 60950-1:2005/AMD1:2009, IEC 60950-1:2005/AMD2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, ANSI/UL 62368-1, 2nd edition	ANSI/UL 60950-1-2014 CSA 60950-1-07, A1:2011+A2:2014 IEC 60950-1:2005, IEC 60950-1:2005/AMD1:2009, IEC 60950-1:2005/AMD2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, ANSI/UL 62368-1, 2nd edition
Certifications / Susceptibility Standards:	47 CFR FCC Part 15, Subpart B, Class A EN 55032:2015 +A11:2020, Class A EN 55035:2017 +A11:2020 EN 300 386 V2.1.1 (2016-07)	47 CFR FCC Part 15, Subpart B, Class A EN 55032:2015 +A11:2020, Class A EN 55035:2017 +A11:2020 EN 300 386 V2.1.1 (2016-07)

Notes: Performance-related numbers are based on local traffic management services only and are subject to change. Only optics provided by F5 are supported.





SPECIFICATIONS	r2800	r2600
Intelligent Traffic Processing:	L7 requests per second: 875K L4 connections per second: 350K L4 HTTP requests per second: 1.8M Maximum L4 concurrent connections: 19M Throughput: 25 Gbps/17 Gbps L4/L7	L7 requests per second: 475K L4 connections per second: 170K L4 HTTP requests per second: 850K Maximum L4 concurrent connections: 19M Throughput: 20 Gbps/13 Gbps L4/L7
Hardware Offload SSL/TLS:	15K TPS (2K SSL TPS) 10K TPS (ECDHE-ECDSA P-256 TPS) 10K TPS (ECDHE P-256-RSA 2k TPS) 10 Gbps bulk encryption	7K TPS (2K SSL TPS) 5K TPS (ECDHE-ECDSA P-256 TPS) 5K TPS (ECDHE P-256-RSA 2k TPS) 8 Gbps bulk encryption
Compression:	15 Gbps (Hardware)	6 Gbps (Software)
Software Architecture:	64-bit TMOS 64-bit F5OS	64-bit TMOS 64-bit F5OS
Multi-Tenancy:	2 Tenants (F5OS 1.8.0 or newer)	1 Tenant
Processor:	8-Core Intel® Atom® processor (8 CPUs available for Tenancy)	8-Core Intel® Atom® processor (4 CPUs available for Tenancy)
Memory:	32 GB DDR	32 GB DDR
Hard Drive:	480GB M.2 SSD	480GB M.2 SSD
Management Ports:	1x 1000BASE-T 1x USB 3.0, 1x serial console	1x 1000BASE-T, 1x USB 3.0, 1x serial console
10G/1G Gigabit Copper Ports:	4 x 10G/1G RJ45 ports	4 x 10G/1G RJ45 Ports
25/10/1G Gigabit Fiber Ports:	4 x 25G/10G/1G SFP+/SFP28/SFP ports	4 x 25G/10G/1G SFP+/SFP28/SFP ports
Power Supply:	1 x 250 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional	1 x 250 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional
Typical Consumption:	85W (single power supply, 48V DC or 110V AC input)	85W (single power supply, 48V DC or 110V AC input)
Input Voltage / Typical Heat generated:	Single Power supply 110 VAC input: 295 BTU/hour 230 VAC input: 295 BTU/hour	Single Power supply 110 VAC input: 295 BTU/hour 230 VAC input: 295 BTU/hour
Dimensions:	H: 1.74 inches (4.37 cm) x W: 17.1 inches (Standard rack) x D: 16.9 inches (42.9 cm). 1U industry standard rack-mount chassis	H: 1.74 inches (4.37 cm) x W: 17.1 inches (Standard rack) x D: 16.9 inches (42.9 cm). 1U industry standard rack-mount chassis
Weight:	20.0 pounds (9.07 kg) with one power supply units (PSUs) (per unit)	20.0 pounds (9.07 kg) with one power supply units (PSUs) (per unit)
Operating Temperature:	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)
Operational Relative Humidity:	5% to 85% (40 C) non-condensing	5% to 85% (40 C) non-condensing
Hardware Certification Model	r2000	r2000
Safety Agency Approval:	ANSI/UL 60950-1-2014 CSA 60950-1-07, A1:2011+A2:2014 IEC 60950-1:2005, IEC 60950-1:2005/AMD1:2009, IEC 60950-1:2005/AMD2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, ANSI/UL 62368-1, 2nd edition	ANSI/UL 60950-1-2014 CSA 60950-1-07, A1:2011+A2:2014 IEC 60950-1:2005, IEC 60950-1:2005/AMD1:2009, IEC 60950-1:2005/AMD2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, ANSI/UL 62368-1, 2nd edition
Certifications / Susceptibility Standards:	47 CFR FCC Part 15, Subpart B, Class A EN 55032:2015 +A11:2020, Class A EN 55035:2017 +A11:2020 EN 300 386 V2.1.1 (2016-07)	47 CFR FCC Part 15, Subpart B, Class A EN 55032:2015 +A11:2020, Class A EN 55035:2017 +A11:2020 EN 300 386 V2.1.1 (2016-07)

Notes: Performance-related numbers are based on local traffic management services only and are subject to change. Only optics provided by F5 are supported.





SPECIFICATIONS	r10920-DF	r5920-DF
Intelligent Traffic Processing:	L7 requests per second: 6.6M L4 connections per second: 2.5M L4 HTTP requests per second: 37M Maximum L4 concurrent connections: 180M Throughput: 190 Gbps/190 Gbps L4/L7	L7 requests per second: 4.3M L4 connections per second: 1.8M L4 HTTP requests per second: 18M Maximum L4 concurrent connections: 100M Throughput: 95 Gbps/95 Gbps L4/L7
Hardware Offload SSL/TLS:	200K TPS (RSA 2k keys) 140K TPS (ECDHE-ECDSA P-256) 110K TPS (ECDHE P-256-RSA 2k) 95 Gbps bulk encryption	100K TPS (RSA 2k keys) 70K TPS (ECDHE-ECDSA P-256) 55K TPS (ECDHE P-256-RSA-2k) 50 Gbps bulk encryption
FIPS SSL:	35K TPS (RSA-2K FIPS 140-3) 8K TPS (ECDHE P-256-ECDSA FIPS 140-3) 33K TPS (ECDHE P-256-RSA-2K FIPS 140-3)	17K TPS (RSA-2K FIPS 140-3) 4K TPS (ECDHE P-256-ECDSA FIPS 140-3) 17K TPS (ECDHE P-256-RSA-2K FIPS 140-3)
Hardware Compression:	90 Gbps	50 Gbps
Hardware DDoS Protection:	160M SYN Cookies per second	80M SYN Cookies per second
Software Architecture:	64-bit TMOS 64-bit F5OS	64-bit TMOS 64-bit F5OS
Multi-Tenancy:	Up to 36	Up to 26
Processor:	12 vCPU's Reserved for F5OS, and 36 vCPU's Available for Tenancy.	6 vCPU's Reserved for F5OS, and 26 vCPU's Available for Tenancy.
Memory:	256 GB DDR	128 GB DDR
Hard Drive:	2x 1TB U.2 Enterprise-class SSD (RAID 1 Mirrored)	2x 1TB U.2 Enterprise-class SSD (RAID 1 Mirrored)
Management Ports:	1x 1000BASE-T 1x USB 3.0, 1x serial console	1x 1000BASE-T, 1x USB 3.0, 1x serial console
100/40 Gigabit Fiber Ports:	4 x 100G/40G QSFP28/QSFP+ ports	2 x 100G/40G QSFP28/QSFP+ ports
25/10 Gigabit Fiber Ports:	16 x 25G/10G SFP28/SFP+ ports	8 x 25G/10G SFP28/SFP+ ports
Power Supply:	2 x 1200 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional	1 x 650 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional
Typical Consumption:	680W (dual power supply, 48V DC or 110V AC input)	425W (single power supply, 48V DC or 110V AC input)
Input Voltage / Typical Heat generated:	Dual Power supply 110 VAC input: 2325 BTU/hour 230 VAC input: 2290 BTU/hour	Single Power supply 110 VAC input: 1455 BTU/hour 230 VAC input: 1420 BTU/hour
Dimensions:	H: 1.72 inches (4.37 cm) x W: 17.1 inches (44.20 cm) x D: 30.6 inches (77.72 cm) (per unit) 1U industry standard rack-mount chassis	H: 1.72 inches (4.37 cm) x W: 17.1 inches (44.20 cm) x D: 30.6 inches (77.72 cm) (per unit) 1U industry standard rack-mount chassis
Weight:	36.0 pounds (16.33 kg) with two power supply units (PSUs) (per unit)	36.0 pounds (16.33 kg) with two power supply units (PSUs) (per unit)
Operating Temperature:	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)
Operational Relative Humidity:	5% to 85% (40 C) non-condensing	5% to 85% (40 C) non-condensing
Hardware Certification Model	r10000F	r5000F
Safety Agency Approval:	ANSI/UL 60950-1-2014 CSA 60950-1-07, including A1:2011+A2:2014 IEC 60950-1:2005, A1:2009+A2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 (Second Edition) EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, UL 62368-1, 2nd edition	ANSI/UL 60950-1-2014 CSA 60950-1-07, including A1:2011+A2:2014 IEC 60950-1:2005, A1:2009+A2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 (Second Edition) EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, UL 62368-1, 2nd edition
Certifications / Susceptibility Standards:	FCC Class A (Part 15), IC Class A; VCCI Class A EN 55032:2012/AC:2013 Class A EN 55035:2017 EN 300 386 V1.6.1 (2012)	FCC Class A (Part 15), IC Class A; VCCI Class A EN 55032:2012/AC:2013 Class A EN 55035:2017 EN 300 386 V1.6.1 (2012)

*Requires using adjacent QSFP28 ports at the same speed (100G/100G or 40G/40G). 100/40G ports do not support breakout cables.
Notes: Performance-related numbers are based on local traffic management services only and are subject to change. Only optics provided by F5 are supported.





SPECIFICATIONS	r12900-DS	r12800-DS
Intelligent Traffic Processing:	L7 requests per second: 10.5M L4 connections per second: 3.5M L4 HTTP requests per second: 37M Maximum L4 concurrent connections: 399M Throughput: 195 Gbps/195 Gbps L4/L7	L7 requests per second: 8.5M L4 connections per second: 3.1M L4 HTTP requests per second: 37M Maximum L4 concurrent connections: 399M Throughput: 195 Gbps/195 Gbps L4/L7
Hardware Offload SSL/TLS:	400K TPS (RSA 2k keys) 300K TPS (ECDHE-ECDSA P-256) 235K TPS (ECDHE P-256-RSA 2k) 110 Gbps bulk encryption	335K TPS (RSA 2k Keys) 240K TPS (ECDHE-ECDSA P-256) 218K TPS (ECDHE P-256-RSA 2k) 100 Gbps bulk encryption
Hardware Compression:	100 Gbps	90 Gbps
Hardware DDoS Protection:	170M SYN Cookies per second	170M SYN Cookies per second
Software Architecture:	64-bit TMOS 64-bit F5OS	64-bit TMOS 64-bit F5OS
Multi-Tenancy:	Up to 58	Up to 52
Processor:	12 vCPU's Reserved for F5OS, and 60 vCPU's Available for Tenancy.	12 vCPU's Reserved for F5OS, and 52 vCPU's Available for Tenancy.
Memory:	512 GB DDR4	512 GB DDR4
Hard Drive:	2x 2TB U.2/U.3 Solid-State Drives (RAID1 Mirrored)	2x 2TB U.2/U.3 Solid-State Drives (RAID1 Mirrored)
Management Ports:	1x 1000BASE-T, 1x USB 3.0, 1x serial console	1x 1000BASE-T, 1x USB 3.0, 1x serial console
100/40 Gigabit Fiber Ports:	4 x 100G/40G QSFP28/QSFP+ ports	4 x 100G/40G QSFP28/QSFP+ ports
25/10 Gigabit Fiber Ports:	16 x 25G/10G SFP28/SFP+ ports	16 x 25G/10G SFP28/SFP+ ports
Power Supply:	2 x 1224 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional	2 x 1224 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional
Typical Consumption:	855W (dual power supply, 48V DC or 110V AC input)	855W (dual power supply, 48V DC or 110V AC input)
Input Voltage / Typical Heat generated:	Dual Power supply 110 VAC input: 2935 BTU/hour 230 VAC input: 2850 BTU/hour	Dual Power supply 110 VAC input: 2935 BTU/hour 230 VAC input: 2850 BTU/hour
Dimensions:	H: 1.72 inches (4.37 cm) x W: 17.1 inches (44.20 cm) x D: 30.6 inches (77.72 cm) (per unit) 1U industry standard rack-mount chassis	H: 1.72 inches (4.37 cm) x W: 17.1 inches (44.20 cm) x D: 30.6 inches (77.72 cm) (per unit) 1U industry standard rack-mount chassis
Weight:	42.0 pounds (19 kg) with two power supply units (PSUs) (per unit)	42.0 pounds (19 kg) with two power supply units (PSUs) (per unit)
Operating Temperature:	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)
Operational Relative Humidity:	5% to 85% (40 C) non-condensing	5% to 85% (40 C) non-condensing
Hardware Certification Model	r12000	r12000
Safety Agency Approval:	ANSI/UL 60950-1-2014 CSA 60950-1-07, including A1:2011+A2:2014 IEC 60950-1:2005, A1:2009+A2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 (Second Edition) EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, UL 62368-1, 2nd edition	ANSI/UL 60950-1-2014 CSA 60950-1-07, including A1:2011+A2:2014 IEC 60950-1:2005, A1:2009+A2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 (Second Edition) EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, UL 62368-1, 2nd edition
Certifications / Susceptibility Standards:	FCC Class A (Part 15), IC Class A; VCCI Class A EN 55032:2012/AC:2013 Class A EN 55035:2017 EN 300 386 V1.6.1 (2012)	FCC Class A (Part 15), IC Class A; VCCI Class A EN 55032:2012/AC:2013 Class A EN 55035:2017 EN 300 386 V1.6.1 (2012)

*Requires using adjacent QSFP28 ports at the same speed (100G/100G or 40G/40G). 100/40G ports do not support breakout cables.
Notes: Performance-related numbers are based on local traffic management services only and are subject to change. Only optics provided by F5 are supported.



SPECIFICATIONS	r12600-DS
Intelligent Traffic Processing:	L7 requests per second: 7M L4 connections per second: 2.8M L4 HTTP requests per second: 37M Maximum L4 concurrent connections: 399M Throughput: 195 Gbps/146 Gbps L4/L7
Hardware Offload SSL/TLS:	270K TPS (RSA 2k keys) 208K TPS (ECDHE-ECDSA P-256) 90K TPS (ECDHE P-256-RSA 2k) 95 Gbps bulk encryption
Hardware Compression:	90 Gbps
Hardware DDoS Protection:	170M SYN Cookies per second
Software Architecture:	64-bit TMOS 64-bit F5OS
Multi-Tenancy:	Up to 44
Processor:	12 vCPU's Reserved for F5OS, and 44 vCPU's Available for Tenancy.
Memory:	512 GB DDR4
Hard Drive:	2x 2TB U.2/U.3 Solid-State Drives (RAID1 Mirrored)
Management Ports:	1x 1000BASE-T, 1x USB 3.0, 1x serial console
100/40 Gigabit Fiber Ports:	4 x 100G/40G QSFP28/QSFP+ ports
25/10 Gigabit Fiber Ports:	16 x 25G/10G SFP28/SFP+ ports
Power Supply:	2 x 1224 W 100-240 VAC (+/- 10%) AUTO Switching Platinum, Dual DC PSU Optional
Typical Consumption:	855W (dual power supply, 48V DC or 110V AC input)
Input Voltage / Typical Heat generated:	Dual Power supply 110 VAC input: 2935 BTU/hour 230 VAC input: 2850 BTU/hour
Dimensions:	H: 1.72 inches (4.37 cm) x W: 17.1 inches (44.20 cm) x D: 30.6 inches (77.72 cm) (per unit) 1U industry standard rack-mount chassis
Weight:	42.0 pounds (19 kg) with two power supply units (PSUs) (per unit)
Operating Temperature:	32 to 104°F (0 to 40°C)
Operational Relative Humidity:	5% to 85% (40 C) non-condensing
Hardware Certification Model	r12000
Safety Agency Approval:	ANSI/UL 60950-1-2014 CSA 60950-1-07, including A1:2011+A2:2014 IEC 60950-1:2005, A1:2009+A2:2013 EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 62368-1:2014 (Second Edition) EN 62368-1:2014+A11:2017 CSA C22.2 No. 62368-1-14, UL 62368-1, 2nd edition
Certifications / Susceptibility Standards:	FCC Class A (Part 15), IC Class A; VCCI Class A EN 55032:2012/AC:2013 Class A EN 55035:2017 EN 300 386 V1.6.1 (2012)

*Requires using adjacent QSFP28 ports at the same speed (100G/100G or 40G/40G). 100/40G ports do not support breakout cables.
Notes: Performance-related numbers are based on local traffic management services only and are subject to change. Only optics provided by F5 are supported.

F5 Global Services

F5 Global Services offers world-class support, training, and consulting to help you get the most from your F5 investment. Whether it's providing fast answers to questions, training internal teams, or handling entire implementations from design to deployment, F5 Global Services can help ensure your applications are always secure, fast, and reliable. For more information about F5 Global Services, contact consulting@f5.com or visit f5.com/support.

Flexible Licensing Options

The platform is available in different types of licensing models to suit your business and budget requirements, including:

- **Perpetual Licensing**: One-time CapEx purchase, with an ability to extend for the lifetime of the product
- **Flexible Consumption Program**: 3-year subscription with maximum architectural flexibility across hybrid environments, SaaS and managed services, and annual budget protection

The Good, Better, Best bundle offerings from F5 provide you with the best value through flexibility to provision additional advanced application traffic management and security modules as needed.

F5 rSeries offers flexible pay-as-you-grow licensing options to deliver IT agility for dynamic business needs and unpredictable application performance requirements. Multiple tiers are offered per platform to provide granular control of performance levers and multi-tenancy. For example, F5 rSeries enables you to scale up your ECC SSL processing capacity in a matter of minutes, without the need to replace your current device.

More Information

For more information on F5 rSeries, visit f5.com. Interested in talking to an F5 sales specialist? Contact sales@f5.com today. For the latest product specifications, see the applicable platform guide on askf5.com.

Data sheets

BIG-IP Local Traffic Manager
BIG-IP DNS
BIG-IP Advanced Firewall Manager
BIG-IP Access Policy Manager
BIG-IP Carrier-Grade NAT
BIG-IP Policy Enforcement Manager
BIG-IP Advanced WAF
F5 Container Ingress Services
F5 SSL Orchestrator

[1] FPGA technology is available on the r5000 and r10000 series models only

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