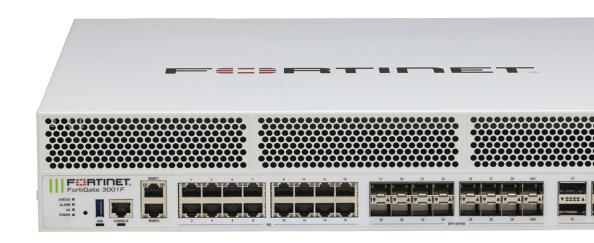


# FortiGate 3000F Series

FG-3000F/FG-3000F-DC, and FG-3001F/FG-3001F-DC



#### Highlights

#### **Gartner Magic Quadrant Leader** for both Network Firewalls and SD-WAN.

Security-Driven
Networking FortiOS
delivers converged
networking and security.

**Unparalleled Performance** with Fortinet's patented / SPU / vSPU processors.

Enterprise Security
with consolidated AI /
ML-powered FortiGuard
Services.

Hyperscale Security to secure any edge at any scale.

## **High Performance with Flexibility**

The FortiGate 3000F Series enables organizations to build security-driven networks that can weave security deep into their datacenter and across their hybrid IT architecture to protect any edge at any scale.

Powered by a rich set of AI/ML-based FortiGuard Services and an integrated security fabric platform, the FortiGate 3000F Series delivers coordinated, automated, end-to-end threat protection across all use cases.

The industry's first integrated Zero Trust Network Access (ZTNA) enforcement within an NGFW solution, FortiGate 3000F automatically controls, verifies, and facilitates user access to applications delivering consistent convergence with a seamless user experience.

IPS	NGFW	Threat Protection	Interfaces
36 Gbps	34 Gbps	33 Gbps	Multiple 10/1 GE RJ45, 100 GE QSFP28, 40 GE QSFP+, 25 GE SFP28, 10 GE SFP+ slots



Available in



**Appliance** 



Virtual



Hosted



Cloud



Container

### **FortiOS Everywhere**

#### FortiOS, Fortinet's Advanced Operating System

FortiOS enables the convergence of high performing networking and security across the Fortinet Security Fabric. Because it can be deployed anywhere, it delivers consistent and context-aware security posture across network, endpoint, and multi-cloud environments.

FortiOS powers all FortiGate deployments whether a physical or virtual device, as a container, or as a cloud service. This universal deployment model enables the consolidation of many technologies and use cases into a simplified, single policy and management framework. Its organically built best-of-breed capabilities, unified operating system, and ultra-scalability allows organizations to protect all edges, simplify operations, and run their business without compromising performance or protection.

FortiOS dramatically expands the Fortinet Security Fabric's ability to deliver advanced AI/ ML-powered services, inline advanced sandbox detection, integrated ZTNA enforcement, and more, provides protection across hybrid deployment models for hardware, software, and Software-as-a-Service with SASE.

FortiOS expands visibility and control, ensures the consistent deployment and enforcement of security policies, and enables centralized management across large-scale networks with the following key attributes:

- Interactive drill-down and topology viewers that display real-time status
- On-click remediation that provides accurate and quick protection against threats and abuses
- Unique threat score system correlates weighted threats with users to prioritize investigations



Intuitive easy to use view into the network and endpoint vulnerabilities



Visibility with FOS Application Signatures

#### **FortiConverter Service**

FortiConverter Service provides hassle-free migration to help organizations transition from a wide range of legacy firewalls to FortiGate Next-Generation Firewalls quickly and easily. The service eliminates errors and redundancy by employing best practices with advanced methodologies and automated processes. Organizations can accelerate their network protection with the latest FortiOS technology.





#### **FortiGuard Services**

#### **Network and File Security**

Services provide protection against network-based and file-based threats. This consists of Intrusion Prevention (IPS) which uses AI/M models to perform deep packet/SSL inspection to detect and stop malicious content, and apply virtual patching when a new vulnerability is discovered. It also includes Anti-Malware for defense against known and unknown file-based threats. Anti-malware services span both antivirus and file sandboxing to provide multi-layered protection and are enhanced in real-time with threat intelligence from FortiGuard Labs. Application Control enhances security compliance and offers real-time application visibility.

#### Web / DNS Security

Services provide protection against web-based threats including DNS-based threats, malicious URLs (including even in emails), and botnet/command and control communications. DNS filtering provides full visibility into DNS traffic while blocking high-risk domains, and protects against DNS tunneling, DNS infiltration, C2 server ID and Domain Generation Algorithms (DGA). URL filtering leverages a database of 300M+ URLs to identify and block links to malicious sites and payloads. IP Reputation and anti-botnet services prevent botnet communications, and block DDoS attacks from known sources.

#### SaaS and Data Security

Services address numerous security use cases across application usage as well as overall data security. This consists of Data Leak Prevention (DLP) which ensures data visibility, management and protection (including blocking exfiltration) across networks, clouds, and users, while simplifying compliance and privacy implementations. Separately, our Inline Cloud Access Security Broker (CASB) service protects data in motion, at rest, and in the cloud. The service enforces major compliance standards and manages account, user and cloud application usage. Services also include capabilities designed to continually assess your infrastructure, validate that configurations are working effectively and secure, and generate awareness of risks and vulnerabilities that could impact business operations. This includes coverage across IoT devices for both IoT detection and IoT vulnerability correlation.

#### **Zero-Day Threat Prevention**

Zero-day threat prevention entails Fortinet's Al-based inline malware prevention, our most advanced sandbox service, to analyze and block unknown files in real-time, offering subsecond protection against zero-day and sophisticated threats across all NGFWs. The service also has a built-in MITRE ATT&CK® matrix to accelerate investigations. The service focuses on comprehensive defense by blocking unknown threats while streamlining incident response efforts and reducing security overhead.

#### **OT Security**

The service provides OT detection, OT vulnerability correlation, virtual patching, OT signatures, and industry-specific protocol decoders for overall robust defense of OT environments and devices.



### Secure Any Edge at Any Scale



#### Powered by Security Processing Unit (SPU)

Traditional firewalls cannot protect against today's content- and connection-based threats because they rely on off-the-shelf hardware and general-purpose CPUs, causing a dangerous performance gap. Fortinet's custom SPU processors deliver the power you need—up to 520Gbps—to detect emerging threats and block malicious content while ensuring your network security solution does not become a performance bottleneck.

#### **ASIC Advantage**



#### Network Processor 7 NP7

Network Processors operate inline to deliver unmatched performance and scalability for critical network functions. Fortinet's breakthrough SPU NP7 network processor works in line with FortiOS functions to deliver:

- Hyperscale firewall, accelerated session setup, and ultra-low latency
- Industry-leading performance for VPN, VXLAN termination, hardware logging, and elephant flows



#### Content Processor 9 CP9

Content Processors act as co-processors to offload resource-intensive processing of security functions. The ninth generation of the Fortinet Content Processor, the CP9, accelerates resource-intensive SSL (including TLS 1.3) decryption and security functions while delivering:

- Pattern matching acceleration and fast inspection of real-time traffic for application identification
- IPS pre-scan/pre-match, signature correlation offload, and accelerated antivirus processing





Intuitive view and clear insights into network security posture with FortiManager

#### Centralized Network and Security Management at Scale

FortiManager, the centralized management solution from Fortinet, enables integrated management of the Fortinet security fabric, including devices like FortiGate, FortiSwitch, and FortiAP. It simplifies and automates the oversight of network and security functions across diverse environments, serving as the fundamental component for deploying Hybrid Mesh Firewalls.



#### **Use Cases**



#### **Next Generation Firewall (NGFW)**

 FortiGuard Labs' suite of Al-powered Security Services—natively integrated with your NGFW—secures web, content, and devices and protects networks from ransomware and sophisticated cyberattacks

- Real-time SSL inspection (including TLS 1.3) provides full visibility into users, devices, and applications across the attack surface
- Fortinet's patented SPU (Security Processing Unit) technology provides industry-leading high-performance protection



#### Segmentation

- Dynamic segmentation adapts to any network topology to deliver true end-to-end security—from the branch to the datacenter and across multi-cloud environments
- Ultra-scalable, low latency, VXLAN segmentation bridges physical and virtual domains with Layer 4 firewall rules
- Prevents lateral movement across the network with advanced, coordinated protection from FortiGuard Security Services detects and prevents known, zero-day, and unknown attacks



#### Secure SD-WAN

- FortiGate WAN Edge powered by one OS and unified security and management framework and systems transforms and secures WANs
- Delivers superior quality of experience and effective security posture for work-from-any where models, SD-Branch, and cloud-first WAN use cases
- Achieve operational efficiencies at any scale through automation, deep analytics, and self-healing



#### **HyperScale**

- Purpose-built SPUs power FortiOS to consolidate networking and security and deliver ultra-scalable Security-Driven Networks
- Unparalleled ultra-high performance offers the industry's highest number of connections and connections per second performance combined with security-enabled performance to safeguard business-critical applications
- Hardware assisted anti-DDoS prevents volumetric attacks and delivers strong security posture

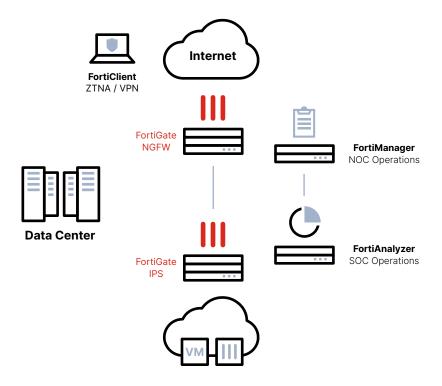




#### Mobile Security for 4G, 5G, and IoT

- SPU-accelerated, high performance CGNAT and IPv6 migration options, including: NAT44, NAT444, NAT64/ DNS64, NAT46 for 4G Gi/sGi, and 5G N6 connectivity and security
- RAN Access Security with highly scalable and highest-performing IPsec aggregation and control Security Gateway (SecGW)
- User plane security enabled by full threat protection and visibility into GTP-U inspection

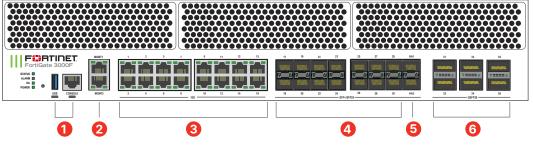
#### **Datacenter Deployment** (NGFW, IPS, Segmentation)

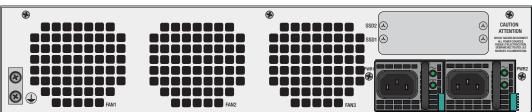




#### Hardware

#### FortiGate 3000F Series





#### Interfaces

- 1. 1 x USB and 1 x Console Port
- 2. 2 × 10 GE / GE RJ45 Management Ports
- 3. 16 × 10 GE / 5 GE / 2.5 GE / GE RJ45 Ports
- 4. 14 × 25 GE SFP28 / 10 GE SFP+ / GE SFP Slots
- 5. 2 × 25 GE SFP28 / 10 GE SFP+ / GE SFP HA Slots
- 6. 6 × 100 GE QSFP28 / 40 GE QSFP+ Slots

#### **Hardware Features**



#### **Hyperscale Firewall License**

This perpetual license empowers organizations by unlocking further performance boosts. The Hyperscale Firewall License enables the hardware acceleration of CGNAT features by utilizing Fortinet's patented SPU NP7. These features include hardware session setup, firewall session logging, and NAT.

#### **Trusted Platform Module (TPM)**

The FortiGate 3000F Series features a dedicated module that hardens physical networking appliances by generating, storing, and authenticating cryptographic keys. Hardware-based security mechanisms protect against malicious software and phishing attacks.

#### **100 GE Connectivity for Network**

High-speed connectivity is essential for network security segmentation at the core of data networks. The FortiGate 3000F series provides multiple 100 GE QSFP28 slots, simplifying network designs without relying on additional devices to bridge desired connectivity.



# **Specifications**

	FG-3000F FG-3001F FG-3000F-DC FG-3001F-D	c _		
Interfaces and Modules				
Hardware Accelerated 100 GE QSFP28 / 40 GE QSFP+ Slots	6			
Hardware Accelerated 25 GE SFP28 / 10 GE SFP+ / GE SFP Slots	16 (include 2x HA Slots)			
Hardware Accelerated 10 GE / 5 GE / 2.5 GE / GE RJ45 Ports	16			
10GE/ GE RJ45 Management Ports	2			
USB Ports (Client / Server)	1/1			
Console Port	1			
Onboard Storage	— 2× 1TB SSD			
Trusted Platform Module (TPM)	Yes			
Included Transceivers	2x SFP+ (SR 10 GE)			
System Performance — Enterprise Traffic Mix	x			
IPS Throughput <sup>2</sup>	36 Gbps			
NGFW Throughput 2,4	34 Gbps			
Threat Protection Throughput <sup>2,5</sup>	33 Gbps			
System Performance and Capacity				
IPv4 Firewall Throughput (1518 / 512 / 64 byte, UDP)	397 / 389 / 221 Gbps			
IPv6 Firewall Throughput (1518 / 512 / 86 byte, UDP)	397/ 389/ 221 Gbps			
Firewall Latency (64 byte, UDP)	3.92 µs			
Firewall Throughput (Packet per Second)	331.5 Mpps			
Concurrent Sessions (TCP)	70 Million / 230 Million**			
New Sessions/Second (TCP)	870 000 / 3 Million**			
Firewall Policies	200 000			
IPsec VPN Throughput (512 byte) 1	105 Gbps			
Gateway-to-Gateway IPsec VPN Tunnels	40 000			
Client-to-Gateway IPsec VPN Tunnels	200 000			
SSL-VPN Throughput <sup>6</sup>	11 Gbps			
Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode)	30 000			
SSL Inspection Throughput (IPS, avg. HTTPS) <sup>3</sup>	29 Gbps			
SSL Inspection CPS (IPS, avg. HTTPS) <sup>3</sup>	29 000			
SSL Inspection Concurrent Session (IPS, avg. HTTPS) <sup>3</sup>	7.5 Million			
Application Control Throughput (HTTP 64K) <sup>2</sup>	115 Gbps			
CAPWAP Throughput (HTTP 64K)	65 Gbps			
Virtual Domains (Default / Maximum)	10 / 500			
Maximum Number of FortiSwitches Supported	300			
	4096 / 2048			
Maximum Number of FortiAPs (Total / Tunnel)				
	20 000			

	FG-3000F FG-3000F-DC	FG-3001F FG-3001F-DC		
Dimensions and Power	10 3000F DC	10 30011 DC		
Height x Width x Length (inches)	3.5 × 17.44 × 21.89			
Height x Width x Length (mm)	88.9 × 443 × 556			
Weight	37.3 lbs (16.9 kg)	38.2 lbs (17.3 kg)		
Form Factor (supports EIA/non-EIA standards)	Rack Mount, 2 RU			
Power Consumption (Average / Maximum)	425 W / 680 W	420 W / 690 W		
AC Power Supply	100-240V AC, 50/60 Hz			
AC Current (Maximum)	12A@100V, 9A@240V			
DC Power Supply	48-60VDC			
DC Current (Maximum)	15A@48V, 9A@240V			
Heat Dissipation	2321 BTU/h	2356 BTU/h		
Redundant Power Supplies (Hot Swappable)	Yes (Default dual AC PSU for 1+1 Redundancy)			
Power Supply Efficiency Rating	80Plus Compliant			
Operating Environment and Certifications				
Operating Temperature	32°F to 104°F (0°C to 40°C)			
Storage Temperature	-31°F to 158°F (-35°C to 70°C)			
Humidity	5% to 90% non-condensing			
Noise Level	69 dBA			
Forced Airflow	Front to Back			
Operating Altitude	Up to 10 000 ft (3048 m)			
Compliance	FCC Part 15 Class A, RCM, VCCI, CE, UL/cUL, CB			
Certifications	USGv6/IPv6			

**Data Sheet** 

Note: All performance values are "up to" and vary depending on system configuration.



<sup>\*</sup> Requires Hyperscale Firewall License

 $<sup>^{\</sup>rm 1}$  IPsec VPN performance test uses AES256-SHA256.

 $<sup>^{\</sup>rm 2}$  IPS (Enterprise Mix), Application Control, NGFW and Threat Protection are measured with Logging enabled.

 $<sup>^{\</sup>rm 3}$  SSL Inspection performance values use an average of HTTPS sessions of different cipher suites.

<sup>&</sup>lt;sup>4</sup> NGFW performance is measured with Firewall, IPS and Application Control enabled.

<sup>5</sup> Threat Protection performance is measured with Firewall, IPS, Application Control and Malware Protection enabled.

<sup>&</sup>lt;sup>6</sup> Uses RSA-2048 Certificate.

# **Ordering Information**

Processories   Proc	Provident	OVAL	Description
Table   18	Product  FortiCate 2000F	SKU	Description  6x 100CE OSED20 clote 16x 10CE SED4/25CE SED20 clote (including 1/4x ports, 2x HA ports)
Tendidate 300F	FortiGate 3000F	FG-3000F	18× 10G Base-T (including 2x MGMT ports), SPU NP7 and CP9 hardware accelerated, and 2 AC
184 100 Base-1 (Triodical 2001F-DC	FortiGate 3000F-DC	FG-3000F-DC	18× 10G Base-T (including 2x MGMT ports), SPU NP7 and CP9 hardware accelerated, and 2 DC
Common   C	FortiGate 3001F	FG-3001F	18× 10G Base-T (including 2x MGMT ports), SPU NP7 and CP9 hardware accelerated, 2 TB SSD
Real Hourit Sliding Rails	FortiGate 3001F-DC	FG-3001F-DC	18× 10G Base-T (including 2x MGMT ports), SPU NP7 and CP9 hardware accelerated, 2 TB SSD
Fig. 3400Pt   Do. Fig. 3400Pt   Do. Fig. 3400Pt   Do. Fig. 3400Pt   Do. Fig. 3400Pt	Optional Accessories/Spares	SKU	Description
FG-3800/3801F, FG-3700D, FG-3800D,	Rack Mount Sliding Rails	SP-FG3040B-RAIL	FG-3140B/-DC, FG-3240C/-DC, FG-3000D/-DC, FG-3000/ 3001F, FG-3100D/-DC, FG-3200D/-DC,
FG-37000-DC, FG-3700D-DC, FG-38150-DC. Transceiver Module FN-TRAN-LX 10E SFP LX Transceiver module for systems with SFP and SFP/SFP-slots. 10E SFP LX Transceiver Module FN-TRAN-SX 10E SFP LX ST Transceiver module for systems with SFP and SFP/SFP-slots. 10E SFP SX Transceiver Module FN-TRAN-SX 10E SFP LX ST Transceiver module for systems with SFP and SFP/SFP-slots. 10E SFP SX Transceiver Module FN-TRAN-SY 10E SFP LX ST Transceiver module for systems with SFP and SFP/SFP-slots. 10E SFP SX Transceiver Module, Short Range FN-TRAN-SFP+C 10E SFP LX ST Transceiver module for systems with SFP and SFP/SFP-slots. 10E SFP LX ST Transceiver Module, Short Range FN-TRAN-SFP+C 10E SFP LX ST Transceiver module, short range for systems with SFP-and SFP/SFP-slots. 10E SFP LX ST Transceiver Module, Long Range FN-TRAN-SFP+C 10E SFP LX ST Transceiver module, short range for systems with SFP-and SFP/SFP-slots. 10E SFP LX ST Transceiver Module, Solven Long Range FN-TRAN-SFP+ED2 10E SFP LX ST Transceiver Module, Solven Long Range FN-TRAN-SFP+ED2 10E SFP LX ST Transceiver Module, Solven Long Range FN-TRAN-SFP+ED2 10E SFP LX ST Transceiver Module, Solven Long Range FN-TRAN-SFP+ED2 10E SFP LX ST Transceiver Module, Solven Long Range FN-TRAN-SFP+ED2 10E SFP LX ST Transceiver Module, Solven Rattern FN-TRAN-SFP+ED2 10E SFP LX ST Transceiver Module, Short Range FN-TRAN-SFP+SP-SP-SP-SP-SP-SP-SP-SP-SP-SP-SP-SP-SP-S	AC Power Supply	SP-FG3800D-PS	FG-3500/3501F, FG3600/3601E, FG-3700D, FG-3700D-NEBS, FG-3700DX, FG-3810D and
1 GE SPP LX Transceiver Module FN-TRAN-LX 1 GE SPP LX transceiver module for systems with SPP and SPP/SPP+ slots. 1 GE SPP RX45 Transceiver Module FN-TRAN-GC 1 GE SPP RX45 transceiver module for systems with SPP and SPP/SPP+ slots. 1 GE SPP RX Transceiver Module FN-TRAN-SPP-GC 1 GE SPP RX45 transceiver module for systems with SPP and SPP/SPP+ slots. 1 GE SPP RX45 Transceiver Module FN-TRAN-SPP-GC 1 GE SPP RX45 transceiver module for systems with SPP and SPP/SPP+ slots. 1 GE SPP+ Transceiver Module, Short Range FN-TRAN-SPP+SR 1 GE SPP+ transceiver module, go for systems with SPP+ and SPP/SPP+ slots. 1 GE SPP+ Transceiver Module, Long Range FN-TRAN-SPP+SR 1 GE SPP+ transceiver module, go for systems with SPP+ and SPP/SPP+ slots. 1 GE SPP+ Transceiver Module, Sterned Range FN-TRAN-SPP+BD27 1 GE SPP+ transceiver module, go for systems with SPP+ and SPP/SPP+ slots. 1 GE SPP+ Transceiver Module, Specific Range FN-TRAN-SPP+BD27 1 GE SPP+ transceiver module, go for systems with SPP+ and SPP/SPP+ slots. 1 GE SPP-Transceiver Module, Gonnects to FN-TRAN-SPP+BD27 1 GE SPP+ transceiver module, SQ (km long range single BID) for systems with SPP+ and SPP/SPP+ slots (connects to FN-TRAN-SPP+BD27, ordered separately) 1 GE SPP+ Transceiver Module, SQ (km long range single BID) for systems with SPP+ and SPP/SPP+ slots (connects to FN-TRAN-SPP+BD27, ordered separately) 1 GE SPP+ Transceiver Module, SQ (km long range single BID) for systems with SPP+ and SPP/SPP+ slots (connects to FN-TRAN-SPP-BD27, ordered separately) 1 GE SPP+ Transceiver Module, SQ (km long range single BID) for systems with SPP+ and SPP/SPP+ slots (connects to FN-TRAN-SPP-BD27, ordered separately) 1 GE SPP+ Transceiver Module, SQ (km long range specific slots) 2 GE SPP28 Transceiver Module, SQ (km long range specific slots) 2 GE SPP28 Transceiver Module, SQ (km long range specific slots) 2 GE SPP28 Transceiver Module, SQ (km long range specific slots) 2 GE SPP28 Transceiver Module, SQ (km long range) 2 GE SPP28 Transceiver Module, SQ (km long range) 2 GE SPP28	DC Power Supply	SP-FG3800D-DC-PS	
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10 GE SPP SX Transceiver Module FN-TRAN-SPP-GC 10 GE SPP+ RJA5 transceiver module for systems with SPP and SPP/SPP+ slots. 10 GE SPP+ Transceiver Module, Short Range FN-TRAN-SPP-SR 10 GE SPP+ RJA5 transceiver module, short range for systems with SPP+ and SPP/SPP+ slots. 10 GE SPP+ Transceiver Module, Extended Range FN-TRAN-SPP-LR 10 GE SPP+ transceiver module, short range for systems with SPP+ and SPP/SPP+ slots. 10 GE SPP+ Transceiver Module, Extended Range FN-TRAN-SPP-LR 10 GE SPP+ transceiver module, extended range for systems with SPP+ and SPP/SPP+ slots. 10 GE SPP+ Transceiver Module, S0km Long Range FN-TRAN-SPP-BD 10 GE SPP+ transceiver module, 30km long range single BID for systems with SPP+ and SPP/SPP+ slots (somects to FN-TRAN-SPP-BD27) slots (connects to FN-TRAN-SPP-BD33) and separately). 10 GE SPP- Transceiver Module, Connects to FN-TRAN-SPP-BD33 10 GE SPP+ transceiver module, 30km long range single BID for systems with SPP+ and SPP/SPP+ slots (connects to FN-TRAN-SPP-BD32), ordered separately). 10 GE SPP- Transceiver Module, SMM Extreme FN-TRAN-SPP-BD33 10 GE SPP+ transceiver module, SMM extreme long range, for systems with SPP+ and SPP/SPP+ slots (connects to FN-TRAN-SPP-BD32), ordered separately). 10 GE SPP-TRAN-SPP-BD27, ordered separately). 10 GE SPP-Transceiver Module, Short Range FN-TRAN-SPP-BD33 10 GE SPP- transceiver module, SMM extreme long range, for systems with SPP+ and SPP/SPP+ slots (somects to FN-TRAN-SPP-BD27), ordered separately). 10 GE SPP-Transceiver Module, Short Range FN-TRAN-SPP-B-SPR 25 GE SPP28 transceiver module, short range for systems with SPP+ and SPP/SPP+ slots. 14 GE GSPP28 Transceiver Module, Short Range FN-TRAN-SPP28-SPR 25 GE SPP28 transceiver module, ong range for systems with GSPP+ slots. 14 GE GSPP4 Transceiver Module, Short Range FN-TRAN-SPP28-SPR 24 GE GSPP28 transceiver module, short range for systems with GSPP+ slots. 14 GE GSPP4 Transceiver Module, Short Range FN-TRAN-GSPP28-SPR 24 GE GSPP28 transceiver module, 40km extended range for systems with GSPP28 slo	1 GE SFP LX Transceiver Module	FN-TRAN-LX	1 GE SFP LX transceiver module for systems with SFP and SFP/SFP+ slots.
10 GE SFP+ RJ45 Transceiver Module, Short Range FN-TRAN-SFP+SR 10 GE SFP+ transceiver module, short range for systems with SFP+ and SFP/SFP+ slots.  10 GE SFP+ Transceiver Module, Long Range FN-TRAN-SFP+SR 10 GE SFP+ transceiver module, long range for systems with SFP+ and SFP/SFP+ slots.  10 GE SFP+ Transceiver Module, Extended Range FN-TRAN-SFP+BR 10 GE SFP+ transceiver module, long range for systems with SFP+ and SFP/SFP+ slots.  10 GE SFP+ Transceiver Module, Standard Range FN-TRAN-SFP+BD27 10 GE SFP+ Transceiver Module, 30km long Range FN-TRAN-SFP+BD27 10 GE SFP+ Transceiver Module, 30km long range single BiDl for systems with SFP+ and SFP/SFP+ slots (connects to FN-TRAN-SFP+BD27, ordered separately).  10 GE SFP+ Transceiver Module, Somma Range FN-TRAN-SFP+BD27 10 GE SFP+ Transceiver Module, 30km long range single BiDl for systems with SFP+ and SFP/SFP+ slots (connects to FN-TRAN-SFP+BD27, ordered separately).  10 GE SFP+ Transceiver Module, Somma Range FN-TRAN-SFP+BD27 10 GE SFP+ Transceiver Module, Somma Range FN-TRAN-SFP+BD28 10 GE SFP28 Transceiver Module, Somma Range FN-TRAN-SFP28-R 25 GE SFP28 Transceiver Module, Somma Range FN-TRAN-SFP28-R 25 GE SFP28 Transceiver Module, Somma Range FN-TRAN-SFP28-R 40 GE GSFP+ Transceiver Module, Somma Range FN-TRAN-GSFP+SR 40 GE GSFP+ transceiver Module, Somma Range FN-TRAN-GSFP28-R 40 GE GSFP28 Transceiver Module, Somma Range FN-TRAN-GSFP28-R 40 GE GSFP28 Transceiver Module,	1 GE SFP RJ45 Transceiver Module	FN-TRAN-GC	1 GE SFP RJ45 transceiver module for systems with SFP and SFP/SFP+slots.
10 GE SFP+ Transceiver Module, Long Range FN-TRAN-SFP+SR 10 GE SFP+ transceiver module, long range for systems with SFP+ and SFP/SFP+ slots. 10 GE SFP+ Transceiver Module, Extended Range FN-TRAN-SFP+ER 10 GE SFP+ transceiver module, out and a single for systems with SFP+ and SFP/SFP+ slots. 10 GE SFP+ Transceiver Module, Stort dead Range FN-TRAN-SFP+BD27 10 GE SFP+ transceiver module, out and a single for systems with SFP+ and SFP/SFP+ slots. 10 GE SFP+ Transceiver Module, Gonnects to FN-TRAN-SFP+BD27 10 GE SFP+ transceiver module, a soft mong range single BiD for systems with SFP+ and SFP/SFP+ slots (connects to FN-TRAN-SFP+BD33, ordered separately). 10 GE SFP+ Transceiver Module, Gonnects to FN-TRAN-SFP+BD33 10 GE SFP+ transceiver module, 30km long range single BiD for systems with SFP+ and SFP/SFP+ slots (connects to FN-TRAN-SFP+BD33, ordered separately). 10 GE SFP+ Transceiver Module, 80km Extreme FN-TRAN-SFP+BD33 10 GE SFP+ transceiver module, 30km connects to FN-TRAN-SFP+BD27, ordered separately). 10 GE SFP+ Transceiver Module, 80km Extreme FN-TRAN-SFP+BD27 10 GE SFP+ transceiver module, 80kM extreme long range, for systems with SFP+ and SFP/SFP+ slots. 25 GE SFP28 Transceiver Module, Short Range FN-TRAN-SFP28-SR 25 GE SFP28 transceiver module, 80kM extreme long range, for systems with SFP+ and SFP/SFP+ slots. 40 GE QSFP+ Transceiver Module, Short Range FN-TRAN-GSFP+SR 40 GE QSFP+ transceiver module, short range for systems with QSFP+ slots. 40 GE QSFP+ Transceiver Module, Short Range BiD FG-TRAN-QSFP+SR-BID 40 GE QSFP+ transceiver module, short range BiD for systems with QSFP+ slots. 40 GE QSFP+ Transceiver Module, Short Range FN-TRAN-QSFP+SR-BID 40 GE QSFP+ transceiver module, short range for systems with QSFP+ slots. 40 GE QSFP+ Transceiver Module, Short Range FN-TRAN-QSFP28-R 40 GE QSFP+ transceiver module, short range for systems with QSFP+ slots. 40 GE QSFP28 Transceiver Module, Short Range FN-TRAN-QSFP28-R 40 GE QSFP28 transceiver module, short range for systems with QSFP28 slots. 100 GE QSFP28 Tra	1 GE SFP SX Transceiver Module	FN-TRAN-SX	1 GE SFP SX transceiver module for systems with SFP and SFP/SFP+ slots.
10 GE SFP+ Transceiver Module, Extended Range FN-TRAN-SFP+BD27 10 GE SFP+ transceiver module, and specific systems with SFP+ and SFP/SFP+ slots. 10 GE SFP+ Transceiver Module, 30km Long Range FN-TRAN-SFP+BD27 10 GE SFP+ transceiver module, 30km long range single BIDI for systems with SFP+ and SFP/SFP+ slots. 10 GE SFP+ Transceiver Module, (connects to FN-TRAN-SFP+BD27) 10 GE SFP+ Transceiver Module, (connects to FN-TRAN-SFP+BD33) 10 GE SFP+ transceiver module, 30km long range single BIDI for systems with SFP+ and SFP/SFP+ slots. 10 GE SFP+ Transceiver Module, 80km Extreme 10 GE GE SFP28 Transceiver Module, 80km Extreme 10 GE G	10 GE SFP+ RJ45 Transceiver Module	FN-TRAN-SFP+GC	10 GE SFP+ RJ45 transceiver module for systems with SFP+ slots.
10 GE SFP+ Transceiver Module, Extended Range FN-TRAN-SFP+BD27 10 GE SFP+ transceiver module, and sept systems with SFP+ and SFP/SFP+ slots. 10 GE SFP+ Transceiver Module, Gonnects to FN-TRAN-SFP+BD27 10 GE SFP+ Transceiver Module, (connects to FN-TRAN-SFP+BD33 10 GE SFP+ Transceiver module, 30km long range single BIDI for systems with SFP+ and SFP/SFP+ slots (connects to FN-TRAN-SFP+BD33, ordered separately). 10 GE SFP+ Transceiver Module, Connects to FN-TRAN-SFP+BD33 10 GE SFP+ Transceiver module, 30km long range single BIDI for systems with SFP+ and SFP/SFP+ slots (connects to FN-TRAN-SFP+BD27, ordered separately). 10 GE SFP+ Transceiver Module, 80km Extreme FN-TRAN-SFP+BD33 10 GE SFP+ Transceiver module, 30km long range single BIDI for systems with SFP+ and SFP/SFP+ slots (connects to FN-TRAN-SFP+BD27, ordered separately). 10 GE SFP+ Transceiver Module, 80km Extreme FN-TRAN-SFP+BD33 10 GE SFP+ Transceiver module, 80kM extreme long range, for systems with SFP28 slots. 25 GE SFP28 Transceiver Module, Short Range FN-TRAN-SFP28-SR 25 GE SFP28 Transceiver module, short range for systems with SFP28 slots. 25 GE SFP28 Transceiver Module, Short Range FN-TRAN-SFP28-LR 25 GE SFP28 Transceiver Module, Short Range BIDI FG-TRAN-QSFP+SR 40 GE QSFP+ Transceiver Module, Short Range BIDI FG-TRAN-QSFP+SR-BIDI 40 GE QSFP+ transceiver module, short range for systems with QSFP+ slots. 40 GE QSFP+ Transceiver Module, Long Range FN-TRAN-QSFP28-BIDI 40 GE QSFP28 Transceiver Module, Short Range FN-TRAN-QSFP28-BIDI 40 GE QSFP28 transceiver module, long range for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, Short Range FN-TRAN-QSFP28-SR 100 GE QSFP28 Transceiver Module, Long Range FN-TRAN-QSFP28-BIDI 10 GE QSFP28 Transceiver module, Short range for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, Long Range FN-TRAN-QSFP28-BIDI 10 GE QSFP28 Transceiver module, Short range for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, Long Range FN-TRAN-QSFP28-BIDI 10 GE QSFP28 Transceiver module, Short ra	10 GE SFP+ Transceiver Module, Short Range	FN-TRAN-SFP+SR	10 GE SFP+ transceiver module, short range for systems with SFP+ and SFP/SFP+ slots.
10 GE SFP+ Transceiver Module, 30km Long Range FN-TRAN-SFP+BD27 10 GE SFP+ Transceiver Module, (connects to FN-FRAN-SFP+BD37, ordered separately). 10 GE SFP+ Transceiver Module, (connects to FN-FRAN-SFP+BD37, ordered separately). 10 GE SFP+ Transceiver Module, 80km Extreme FN-TRAN-SFP+BD27, ordered separately). 10 GE SFP+ Transceiver Module, 80km Extreme FN-TRAN-SFP+BD27, ordered separately). 10 GE SFP+ Transceiver Module, 80km Extreme FN-TRAN-SFP+BD27, ordered separately). 10 GE SFP+ Transceiver Module, Short Range FN-TRAN-SFP28-SR 25 GE SFP28 Transceiver Module, Short Range FN-TRAN-SFP28-SR 25 GE SFP28 Transceiver Module, Long Range FN-TRAN-SFP28-LR 25 GE SFP28 Transceiver Module, Short range for systems with SFP28 slots. 40 GE QSFP+ Transceiver Module, Short Range FN-TRAN-QSFP4-SR-BIDI 40 GE QSFP4 Transceiver Module, Short Range FN-TRAN-QSFP4-SR-BIDI 40 GE QSFP4 Transceiver Module, 40km Extended Range FN-TRAN-QSFP4-SR 40 GE QSFP4 Transceiver Module, 40km Extended Range FN-TRAN-QSFP4-SR 40 GE QSFP4 Transceiver Module, 40km Extended Range FN-TRAN-QSFP28-SR 100 GE QSFP28 Transceiver Module, 40km Extended Range FN-TRAN-QSFP28-SR 100 GE QSFP28 Transceiver Module, Long Range FN-TRAN-QSFP28-SR 100 GE QSFP28 Transceiver Module, Congrange FN-TRAN-QSFP28-SR 100 GE QSFP28 Transceiver Module, Congrange FN-TRAN-QSFP28-SR 100 GE QSFP28 Transceiver Module, Congrange FN-TRAN-QSFP28-BIDI 100 GE QSFP28 Tran	10 GE SFP+ Transceiver Module, Long Range	FN-TRAN-SFP+LR	10 GE SFP+ transceiver module, long range for systems with SFP+ and SFP/SFP+ slots.
slots (connects to FN-TRAN-SFP+BD33, ordered separately).  10 GE SFP+ Transceiver Module, (connects to FN-TRAN-SFP+BD33	10 GE SFP+ Transceiver Module, Extended Range	FN-TRAN-SFP+ER	10 GE SFP+ transceiver module, extended range for systems with SFP+ and SFP/SFP+ slots.
Slots (connects to FN-TRAN-SFP+BD27, ordered separately).  10 GE SFP+ Transceiver Module, 80km Extreme Long Range FN-TRAN-SFP+ZR 10 GE SFP+ transceiver module, 80kM extreme long range, for systems with SFP4 and SFP/SFP+ slots.  25 GE SFP28 Transceiver Module, Short Range FN-TRAN-SFP28-SR 25 GE SFP28 transceiver module, long range for systems with SFP28 slots.  25 GE SFP28 Transceiver Module, Long Range FN-TRAN-SFP28-LR 25 GE SFP28 transceiver module, long range for systems with SFP28 slots.  40 GE QSFP+ Transceiver Module, Short Range BiDi FO-TRAN-QSFP+SR-BIDI 40 GE QSFP+ transceiver module, short range for systems with QSFP+ slots.  40 GE QSFP+ Transceiver Module, Short Range BiDi FG-TRAN-QSFP+SR-BIDI 40 GE QSFP+ transceiver module, short range BiDi for systems with QSFP+ slots.  40 GE QSFP+ Transceiver Module, A0km Extended Range FN-TRAN-QSFP+ER 40 GE QSFP+ transceiver module, long range for systems with QSFP+ slots.  40 GE QSFP+ Transceiver Module, A0km Extended Range FN-TRAN-QSFP28-SR 100 GE QSFP28 transceiver module, 40km extended range for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, Short Range FN-TRAN-QSFP28-SR 100 GE QSFP28 transceivers, 4 channel parallel fiber, short range for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, Long Range FN-TRAN-QSFP28-CWDM4 100 GE QSFP28 transceivers, 4 channel parallel fiber, long range for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, CWDM4 FN-TRAN-QSFP28-BIDI 100 GE QSFP28 transceiver module, short range, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 20km Extended Range FN-TRAN-QSFP28-BIDI 100 GE QSFP28 transceiver module, short range, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 20km Extended Range FN-TRAN-QSFP28-BIDI 100 GE QSFP28 transceiver module, 20km extended range, eLR4, gen3, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 20km Range FN-TRAN-QSFP28-BR4 100 GE QSFP28 transceiver module, 20km range, LR4, for systems with QSFP28 slots.  100 GE QSFP28 Trans	10 GE SFP+ Transceiver Module, 30km Long Range	FN-TRAN-SFP+BD27	
Slots.  25 GE SFP28 Transceiver Module, Short Range FN-TRAN-SFP28-SR FN-TRAN-SFP28-SR FN-TRAN-SFP28-SR FN-TRAN-SFP28-SR FN-TRAN-SFP28-LR FN-TRAN-GSFP+SR FN-TRAN-GSFP+SR FN-TRAN-GSFP+SR FN-TRAN-GSFP+SR FN-TRAN-GSFP+SR FN-TRAN-GSFP+SR FN-TRAN-GSFP+SR FN-TRAN-GSFP+SR FN-TRAN-GSFP+SR FN-TRAN-GSFP28-LR FN-TRAN-GSFP28-LR FN-TRAN-GSFP28-LR FN-TRAN-GSFP28-LR FN-TRAN-GSFP28-BIDI	10 GE SFP+ Transceiver Module, (connects to FN- TRAN-SFP+BD27, ordered separately)	FN-TRAN-SFP+BD33	
25 GE SFP28 Transceiver Module, Long Range FN-TRAN-SFP28-LR 25 GE SFP28 transceiver module, long range for systems with SFP28 slots.  40 GE QSFP+ Transceiver Module, Short Range FN-TRAN-QSFP+SR 40 GE QSFP+ transceiver module, short range for systems with QSFP+ slots.  40 GE QSFP+ Transceiver Module, Long Range FN-TRAN-QSFP+SR-BIDI 40 GE QSFP+ transceiver module, long range for systems with QSFP+ slots.  40 GE QSFP+ Transceiver Module, Long Range FN-TRAN-QSFP+LR 40 GE QSFP+ transceiver module, long range for systems with QSFP+ slots.  40 GE QSFP+ transceiver Module, 40km extended Range FN-TRAN-QSFP+LR 40 GE QSFP28 transceiver module, long range for systems with QSFP+ slots.  40 GE QSFP28 transceiver Module, Short Range FN-TRAN-QSFP28-SR 100 GE QSFP28 transceiver Module, Short Range FN-TRAN-QSFP28-SR 100 GE QSFP28 transceivers, 4 channel parallel fiber, short range for systems with QSFP28 slots.  100 GE QSFP28 transceiver Module, CWDM4 FN-TRAN-QSFP28-CWDM4 100 GE QSFP28 transceivers, 4 channel parallel fiber, long range for systems with QSFP28 slots.  100 GE QSFP28 BIDI Transceiver Module, CWDM4 FN-TRAN-QSFP28-CWDM4 100 GE QSFP28 BIDI transceiver module, short range, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 20km FN-TRAN-QSFP28-BIDI 100 GE QSFP28 transceiver module, Short range, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver module, 20km extended range, eLR4, gen3, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver module, 100m range, MMF, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver module, 20km range, LR4, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver module, 20km range, LR4, for systems with QSFP28 slots.  25 GE SFP28 Passive Direct Attach Cable, 1m range, for systems with SFP28 slots.  100 GE QSFP28 Passive Direct Attach Cable, 3m Range FN-CABLE-SFP28-1 25 GE SFP28 passive direct attach cable, 3m range, for systems with SFP28 slots.	10 GE SFP+ Transceiver Module, 80km Extreme Long Range	FN-TRAN-SFP+ZR	
40 GE QSFP+ Transceiver Module, Short Range FN-TRAN-QSFP+SR 40 GE QSFP+ transceiver module, short range for systems with QSFP+ slots. 40 GE QSFP+ Transceiver Module, Long Range FN-TRAN-QSFP+SR-BIDI 40 GE QSFP+ transceiver module, long range for systems with QSFP+ slots. 40 GE QSFP+ transceiver module, Long Range FN-TRAN-QSFP+LR 40 GE QSFP+ transceiver module, long range for systems with QSFP+ slots. 40 GE QSFP+ transceiver module, A0km extended range for systems with QSFP+ slots. 40 GE QSFP+ transceiver module, A0km extended range for systems with QSFP+ slots. 40 GE QSFP28 transceiver module, A0km extended range for systems with QSFP28 slots. 100 GE QSFP28 transceiver module, Short range for systems with QSFP28 slots. 100 GE QSFP28 transceiver Module, Long Range FN-TRAN-QSFP28-LR 100 GE QSFP28 transceivers, 4 channel parallel fiber, long range for systems with QSFP28 slots. 100 GE QSFP28 transceiver Module, CWDM4 FN-TRAN-QSFP28-CWDM4 100 GE QSFP28 transceivers, LC connectors, 2KM for systems with QSFP28 slots. 100 GE QSFP28 BIDI Transceiver Module, PN-TRAN-QSFP28-BIDI 100 GE QSFP28 BIDI transceiver module, short range, for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, 20km Extended Range FN-TRAN-QSFP28-ER 100 GE QSFP28 transceiver module, 20km extended range, eLR4, gen3, for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, 20km Range FN-TRAN-QSFP28-LR4 100 GE QSFP28 transceiver module, 20km range, MMF, for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, 20km Range FN-TRAN-QSFP28-LR4 100 GE QSFP28 transceiver module, 20km range, LR4, for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, 20km range, for systems with QSFP28 slots. 100 GE QSFP28 Passive Direct Attach Cable, 1m Range FN-CABLE-SFP28-1 25 GE SFP28 Passive Direct Attach Cable, 3m Range FN-CABLE-SFP28-3 25 GE SFP28 Passive Direct Attach Cable, 3m Range FN-CABLE-SFP28-3 25 GE SFP28 Passive Direct Attach Cable, 3m Range	25 GE SFP28 Transceiver Module, Short Range	FN-TRAN-SFP28-SR	25 GE SFP28 transceiver module, short range for systems with SFP28 slots.
40 GE QSFP+ Transceiver Module, Short Range BiDi FG-TRAN-QSFP+SR-BIDI 40 GE QSFP+ transceiver module, short range BiDi for systems with QSFP+ slots.  40 GE QSFP+ Transceiver Module, Long Range FN-TRAN-QSFP+ER 40 GE QSFP+ transceiver module, long range for systems with QSFP+ slots.  40 GE QSFP+ transceiver module, 40km extended range for systems with QSFP+ slots.  40 GE QSFP+ transceiver module, 40km extended range for systems with QSFP+ slots.  40 GE QSFP+ transceiver module, 40km extended range for systems with QSFP+ slots.  40 GE QSFP28 Transceiver Module, 5hort Range FN-TRAN-QSFP28-SR 100 GE QSFP28 transceivers, 4 channel parallel fiber, short range for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, Long Range FN-TRAN-QSFP28-LR 100 GE QSFP28 transceivers, 4 channel parallel fiber, long range for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, CWDM4 FN-TRAN-QSFP28-CWDM4 100 GE QSFP28 transceiver module, short range, for systems with QSFP28 slots.  100 GE QSFP28 BIDI Transceiver Module, 20km FN-TRAN-QSFP28-BIDI 100 GE QSFP28 Transceiver Module, 20km FN-TRAN-QSFP28-ER 100 GE QSFP28 transceiver module, 20km extended range, eLR4, gen3, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 100m Range FN-TRAN-QSFP28-SR4 100 GE QSFP28 transceiver module, 100m range, MMF, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 20km Range FN-TRAN-QSFP28-LR4 100 GE QSFP28 transceiver module, 20km range, LR4, for systems with QSFP28 slots.  25 GE SFP28 Passive Direct Attach Cable, 1m Range FN-CABLE-SFP28-1 25 GE SFP28 passive direct attach cable, 1m range, for systems with SFP28 slots.	25 GE SFP28 Transceiver Module, Long Range	FN-TRAN-SFP28-LR	25 GE SFP28 transceiver module, long range for systems with SFP28 slots.
40 GE QSFP+ Transceiver Module, Long Range FN-TRAN-QSFP+LR 40 GE QSFP+ transceiver module, long range for systems with QSFP+ slots.  40 GE QSFP+ Transceiver Module, 40km Extended Range FN-TRAN-QSFP+ER 40 GE QSFP+ transceiver module, 40km extended range for systems with QSFP+ slots.  40 GE QSFP+ transceiver Module, 40km extended range for systems with QSFP+ slots.  40 GE QSFP28 Transceiver Module, 50km Range FN-TRAN-QSFP28-SR 100 GE QSFP28 transceivers, 4 channel parallel fiber, long range for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, CWDM4 FN-TRAN-QSFP28-CWDM4 100 GE QSFP28 transceivers, 4 channel parallel fiber, long range for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, CWDM4 FN-TRAN-QSFP28-CWDM4 100 GE QSFP28 transceivers, LC connectors, 2KM for systems with QSFP28 slots.  100 GE QSFP28 BIDI Transceiver Module, 5N-TRAN-QSFP28-BIDI 100 GE QSFP28 BIDI transceiver module, short range, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 20km FN-TRAN-QSFP28-BR 100 GE QSFP28 transceiver module, 20km extended range, eLR4, gen3, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 100m Range FN-TRAN-QSFP28-SR4 100 GE QSFP28 transceiver module, 100m range, MMF, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 20km Range FN-TRAN-QSFP28-LR4 100 GE QSFP28 transceiver module, 20km range, LR4, for systems with QSFP28 slots.  SKU Description  25 GE SFP28 Passive Direct Attach Cable, 1m Range FN-CABLE-SFP28-1 25 GE SFP28 passive direct attach cable, 1m range, for systems with SFP28 slots.  FN-CABLE-SFP28-1 25 GE SFP28 passive direct attach cable, 3m range, for systems with SFP28 slots.	40 GE QSFP+ Transceiver Module, Short Range	FN-TRAN-QSFP+SR	40 GE QSFP+ transceiver module, short range for systems with QSFP+ slots.
40 GE QSFP+ transceiver Module, 40km Extended Range FN-TRAN-QSFP+ER 40 GE QSFP+ transceiver module, 40km extended range for systems with QSFP+/QSFP28 slots.  100 GE QSFP28 Transceiver Module, Short Range FN-TRAN-QSFP28-SR 100 GE QSFP28 transceivers, 4 channel parallel fiber, short range for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, Long Range FN-TRAN-QSFP28-LR 100 GE QSFP28 transceivers, 4 channel parallel fiber, long range for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, CWDM4 FN-TRAN-QSFP28-CWDM4 100 GE QSFP28 transceivers, LC connectors, 2KM for systems with QSFP28 slots.  100 GE QSFP28 BIDI Transceiver Module, Short range, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 20km Extended Range FN-TRAN-QSFP28-ER 100 GE QSFP28 transceiver module, 20km extended range, eLR4, gen3, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 100m Range FN-TRAN-QSFP28-SR4 100 GE QSFP28 transceiver module, 100m range, MMF, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 20km Range FN-TRAN-QSFP28-LR4 100 GE QSFP28 transceiver module, 20km range, LR4, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 20km Range FN-TRAN-QSFP28-LR4 100 GE QSFP28 transceiver module, 20km range, LR4, for systems with QSFP28 slots.  100 GE QSFP28 Passive Direct Attach Cable, 1m Range FN-CABLE-SFP28-1 25 GE SFP28 Passive direct attach cable, 1m range, for systems with SFP28 slots.  25 GE SFP28 Passive Direct Attach Cable, 3m Range FN-CABLE-SFP28-3 25 GE SFP28 Passive direct attach cable, 3m range, for systems with SFP28 slots.	40 GE QSFP+ Transceiver Module, Short Range BiDi	FG-TRAN-QSFP+SR-BIDI	40 GE QSFP+ transceiver module, short range BiDi for systems with QSFP+ slots.
Range  FN-TRAN-QSFP28-SR  100 GE QSFP28 transceiver, 4 channel parallel fiber, short range for systems with QSFP28 slots.  100 GE QSFP28 transceiver Module, Long Range FN-TRAN-QSFP28-LR  100 GE QSFP28 transceivers, 4 channel parallel fiber, long range for systems with QSFP28 slots.  100 GE QSFP28 transceiver Module, CWDM4 FN-TRAN-QSFP28-CWDM4  FN-TRAN-QSFP28-CWDM4 FN-TRAN-QSFP28-BIDI	40 GE QSFP+ Transceiver Module, Long Range	FN-TRAN-QSFP+LR	40 GE QSFP+ transceiver module, long range for systems with QSFP+ slots.
100 GE QSFP28 Transceiver Module, Long Range FN-TRAN-QSFP28-CWDM4 100 GE QSFP28 Transceiver Module, CWDM4 FN-TRAN-QSFP28-CWDM4 100 GE QSFP28 transceivers, LC connectors, 2KM for systems with QSFP28 slots. 100 GE QSFP28 BIDI Transceiver Module, 2Okm FN-TRAN-QSFP28-BIDI 100 GE QSFP28 BIDI transceiver module, short range, for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, 20km Extended Range FN-TRAN-QSFP28-BR 100 GE QSFP28 transceiver module, 20km extended range, eLR4, gen3, for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, 100m Range FN-TRAN-QSFP28-SR4 100 GE QSFP28 transceiver module, 100m range, MMF, for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, 20km Range FN-TRAN-QSFP28-LR4 100 GE QSFP28 transceiver module, 20km range, LR4, for systems with QSFP28 slots.  Cables SKU Description FN-CABLE-SFP28-1 25 GE SFP28 Passive Direct Attach Cable, 3m Range FN-CABLE-SFP28-3 25 GE SFP28 passive direct attach cable, 3m range, for systems with SFP28 slots.	40 GE QSFP+ Transceiver Module, 40km Extended Range	FN-TRAN-QSFP+ER	40 GE QSFP+ transceiver module, 40km extended range for systems with QSFP+/QSFP28 slots.
100 GE QSFP28 Transceiver Module, CWDM4 FN-TRAN-QSFP28-CWDM4 100 GE QSFP28 BIDI Transceiver module, short range, for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, 20km Extended Range FN-TRAN-QSFP28-ER 100 GE QSFP28 Transceiver module, 20km extended range, eLR4, gen3, for systems with QSFP28 slots. 100 GE QSFP28 Transceiver module, 100m range, MMF, for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, 100m Range FN-TRAN-QSFP28-SR4 100 GE QSFP28 transceiver module, 100m range, MMF, for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, 20km range, LR4, for systems with QSFP28 slots. 100 GE QSFP28 transceiver module, 20km range, LR4, for systems with QSFP28 slots. 100 GE QSFP28 Passive Direct Attach Cable, 1m Range FN-CABLE-SFP28-1 25 GE SFP28 Passive Direct Attach Cable, 3m Range FN-CABLE-SFP28-3 25 GE SFP28 passive direct attach cable, 3m range, for systems with SFP28 slots.	100 GE QSFP28 Transceiver Module, Short Range	FN-TRAN-QSFP28-SR	100 GE QSFP28 transceivers, 4 channel parallel fiber, short range for systems with QSFP28 slots.
100 GE QSFP28 BIDI Transceiver Module, 20km 100 GE QSFP28 Transceiver Module, 20km 100 GE QSFP28 Transceiver module, 20km extended range, eLR4, gen3, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver module, 20km extended range, eLR4, gen3, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 100m Range 100 GE QSFP28 Transceiver module, 100m range, MMF, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 20km Range 100 GE QSFP28 Transceiver module, 20km range, LR4, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver module, 20km range, LR4, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver module, 20km range, LR4, for systems with QSFP28 slots.  25 GE SFP28 Passive Direct Attach Cable, 1m Range 100 GE QSFP28 passive direct attach cable, 1m range, for systems with SFP28 slots.  25 GE SFP28 Passive Direct Attach Cable, 3m Range 100 GE QSFP28 passive direct attach cable, 3m range, for systems with SFP28 slots.	100 GE QSFP28 Transceiver Module, Long Range	FN-TRAN-QSFP28-LR	
100 GE QSFP28 Transceiver Module, 20km Extended Range FN-TRAN-QSFP28-ER 100 GE QSFP28 transceiver module, 20km extended range, eLR4, gen3, for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, 100m Range FN-TRAN-QSFP28-SR4 100 GE QSFP28 transceiver module, 100m range, MMF, for systems with QSFP28 slots. 100 GE QSFP28 Transceiver Module, 20km Range FN-TRAN-QSFP28-LR4 100 GE QSFP28 transceiver module, 20km range, LR4, for systems with QSFP28 slots. Cables SKU Description 25 GE SFP28 Passive Direct Attach Cable, 1m Range FN-CABLE-SFP28-1 25 GE SFP28 passive direct attach cable, 1m range, for systems with SFP28 slots. 25 GE SFP28 Passive Direct Attach Cable, 3m Range FN-CABLE-SFP28-3 25 GE SFP28 passive direct attach cable, 3m range, for systems with SFP28 slots.	100 GE QSFP28 Transceiver Module, CWDM4	FN-TRAN-QSFP28-CWDM4	100 GE QSFP28 transceivers, LC connectors, 2KM for systems with QSFP28 slots.
Extended Range slots.  100 GE QSFP28 Transceiver Module, 100m Range FN-TRAN-QSFP28-SR4 100 GE QSFP28 transceiver module, 100m range, MMF, for systems with QSFP28 slots.  100 GE QSFP28 Transceiver Module, 20km Range FN-TRAN-QSFP28-LR4 100 GE QSFP28 transceiver module, 20km range, LR4, for systems with QSFP28 slots.  Cables SKU Description  25 GE SFP28 Passive Direct Attach Cable, 1m Range FN-CABLE-SFP28-1 25 GE SFP28 passive direct attach cable, 1m range, for systems with SFP28 slots.  25 GE SFP28 Passive Direct Attach Cable, 3m Range FN-CABLE-SFP28-3 25 GE SFP28 passive direct attach cable, 3m range, for systems with SFP28 slots.	100 GE QSFP28 BIDI Transceiver Module		
100 GE QSFP28 Transceiver Module, 20km Range FN-TRAN-QSFP28-LR4 100 GE QSFP28 transceiver module, 20km range, LR4, for systems with QSFP28 slots.  Cables SKU Description 25 GE SFP28 Passive Direct Attach Cable, 1m Range FN-CABLE-SFP28-1 25 GE SFP28 passive direct attach cable, 1m range, for systems with SFP28 slots.  25 GE SFP28 passive Direct Attach Cable, 3m Range FN-CABLE-SFP28-3 25 GE SFP28 passive direct attach cable, 3m range, for systems with SFP28 slots.	100 GE QSFP28 Transceiver Module, 20km Extended Range	FN-TRAN-QSFP28-ER	
Cables SKU Description 25 GE SFP28 Passive Direct Attach Cable, 1m Range FN-CABLE-SFP28-1 25 GE SFP28 Passive Direct Attach Cable, 3m Range FN-CABLE-SFP28-3 25 GE SFP28 passive direct attach cable, 3m range, for systems with SFP28 slots. 25 GE SFP28 passive direct attach cable, 3m range, for systems with SFP28 slots.	100 GE QSFP28 Transceiver Module, 100m Range	FN-TRAN-QSFP28-SR4	100 GE QSFP28 transceiver module, 100m range, MMF, for systems with QSFP28 slots.
25 GE SFP28 Passive Direct Attach Cable, 1m Range FN-CABLE-SFP28-1 25 GE SFP28 passive direct attach cable, 1m range, for systems with SFP28 slots.  25 GE SFP28 passive Direct Attach Cable, 3m Range FN-CABLE-SFP28-3 25 GE SFP28 passive direct attach cable, 3m range, for systems with SFP28 slots.	100 GE QSFP28 Transceiver Module, 20km Range	FN-TRAN-QSFP28-LR4	100 GE QSFP28 transceiver module, 20km range, LR4, for systems with QSFP28 slots.
25 GE SFP28 Passive Direct Attach Cable, 3m Range FN-CABLE-SFP28-3 25 GE SFP28 passive direct attach cable, 3m range, for systems with SFP28 slots.	Cables	SKU	Description
	25 GE SFP28 Passive Direct Attach Cable, 1m Range	FN-CABLE-SFP28-1	25 GE SFP28 passive direct attach cable, 1m range, for systems with SFP28 slots.
25 GE SFP28 Passive Direct Attach Cable, 5m Range FN-CABLE-SFP28-5 25 GE SFP28 passive direct attach cable, 5m range, for systems with SFP28 slots.	25 GE SFP28 Passive Direct Attach Cable, 3m Range	FN-CABLE-SFP28-3	25 GE SFP28 passive direct attach cable, 3m range, for systems with SFP28 slots.
	25 GE SFP28 Passive Direct Attach Cable, 5m Range	FN-CABLE-SFP28-5	25 GE SFP28 passive direct attach cable, 5m range, for systems with SFP28 slots.



### **Subscriptions**

			Bundles			
Service Category	Service Offering	A-la-carte	Enterprise Protection	Unified Threat Protection	Advanced Threat Protection	
FortiGuard Security	IPS — IPS, Malicious/Botnet URLs	•	•	•	•	
Services	Anti-Malware Protection (AMP)—AV, Botnet Domains, Mobile Malware, Virus Outbreak Protection, Content Disarm and Reconstruct <sup>3</sup> , Al-based Heurestic AV, FortiGate Cloud Sandbox	•	•	•	•	
	URL, DNS and Video Filtering — URL, DNS and Video <sup>3</sup> Filtering, Malicious Certificate	•	•	•		
	Anti-Spam		•	•		
	Al-based Inline Malware Prevention <sup>3</sup>	•	•			
	Data Loss Prevention (DLP) 1	•	•			
	Attack Surface Security — IoT Device Detection, IoT Vulnerability Correlation and Virtual Patching, Security Rating, Outbreak Check	•	•			
	OT Security—OT Device Detection, OT vulnerability correlation and Virtual Patching, OT Application Control and IPS <sup>1</sup>	•				
	Application Control		included with FortiCare Subscription			
	Inline CASB <sup>3</sup>		included with FortiCare Subscription			
SD-WAN and SASE	SD-WAN Underlay Bandwidth and Quality Monitoring	•				
Services	SD-WAN Overlay-as-a-Service	•				
	SD-WAN Connector for FortiSASE Secure Private Access	•				
	SASE connector for FortiSASE Secure Edge Management (with 10Mbps Bandwidth) <sup>2</sup>	•				
NOC and SOC Services	FortiConverter Service for one time configuration conversion	•	•			
	Managed FortiGate Service—available 24×7, with Fortinet NOC experts performing device setup, network, and policy change management	•				
	FortiGate Cloud—Management, Analysis, and One Year Log Retention	•				
	FortiManager Cloud	•				
	FortiAnalyzer Cloud	•				
	FortiGuard SOCaaS—24×7 cloud-based managed log monitoring, incident triage, and SOC escalation service	•				
Hardware and Software Support	FortiCare Essentials <sup>2</sup>	•				
	FortiCare Premium	•	•	•	•	
	FortiCare Elite	•				
Base Services	Device/OS Detection, GeoIPs, Trusted CA Certificates, Internet Services and Botnet IPs, DDNS (v4/v6), Local Protection, PSIRT Check, Anti-Phishing		included with For	tiCare Subscription		

- 1. Full features available when running FortiOS 7.4.1.
- 2. Desktop Models only.
- 3. Not available for FortiGate/FortiWiFi 40F, 60E, 60F, 80E, and 90E series from 7.4.4 onwards.



#### **FortiGuard Bundles**

FortiGuard Labs delivers a number of security intelligence services to augment the FortiGate firewall platform. You can easily optimize the protection capabilities of your FortiGate with one of these FortiGuard Bundles.



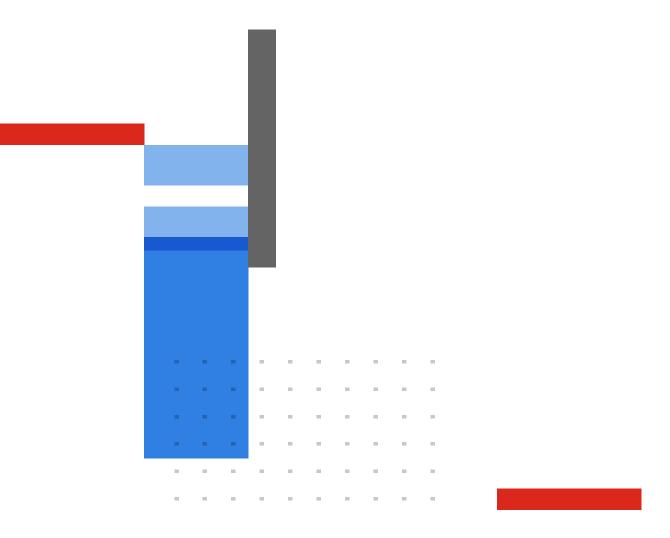
#### **FortiCare Services**

Fortinet prioritizes customer success through FortiCare Services, optimizing the Fortinet Security Fabric solution. Our comprehensive lifecycle services include Design, Deploy, Operate, Optimize, and Evolve. The FortiCare Elite, one of the service variants, offers heightened SLAs and swift issue resolution with a dedicated support team. This advanced support option includes an Extended End-of-Engineering-Support of 18 months, providing flexibility. Access the intuitive FortiCare Elite Portal for a unified view of device and security health, streamlining operational efficiency and maximizing Fortinet deployment performance.



#### **Fortinet Corporate Social Responsibility Policy**

Fortinet is committed to driving progress and sustainability for all through cybersecurity, with respect for human rights and ethical business practices, making possible a digital world you can always trust. You represent and warrant to Fortinet that you will not use Fortinet's products and services to engage in, or support in any way, violations or abuses of human rights, including those involving illegal censorship, surveillance, detention, or excessive use of force. Users of Fortinet products are required to comply with the Fortinet EULA and report any suspected violations of the EULA via the procedures outlined in the Fortinet Whistleblower Policy.





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