X2-12800G

PROVIDES THE DATA THAT COUNTS FOR NETWORK MONITORING

AGGREGATION, REPLICATION, L2–L4 FILTERING, LOAD BALANCING, PACKET SLICING, TIMESTAMPING

The Profitap X2-12800G is a high-end, high-density Network Packet Broker with a total throughput of 12.8 Tbps, offering packet slicing, timestamping, GRE de-tunneling, VXLAN de-tunneling, ERSPAN tunneling and de-tunneling, and many more features.

Featuring 32 QSFP-DD ports (400 Gbps) the X2-12800G provides aggregation, replication, powerful filtering and load balancing in very high bandwidth port monitoring and analysis scenarios, all in a single 1U rack unit.

KEY BENEFITS

- All X2-Series advanced features operate simultaneously at wirespeed without the need for a co-processor.
- Up to 6000 non-conflicting rules: no conflict between new and existing rules.
- Only 1 rule consumed per port range filter.
- High performance and throughput in a compact, high density footprint.

- Optimize traffic and deliver actionable data to monitoring and security tools.
- Leverage existing infrastructure for a cost-effective increase in capabilities.
- Advanced integration with physical and virtual traffic access, analysis, and security systems.

KEY FEATURES

AGGREGATION
Aggregate traffic coming from multiple incoming links.

REPLICATION
Replicate traffic to multiple monitoring and security tools.

FILTERING
Only send actionable data to each of the connected tools.

LOAD BALANCING
Balance traffic over multiple monitoring and security tools.

PACKET SLICING
Remove payload that is irrelevant to network monitoring and security analysis, conserving disk space and load on capture devices.

TIMESTAMPING
Leverage accurate timing information for accurate forensic analysis, and legal and criminal investigation.

GTP IP FILTERING
Filter by IP in GTP sessions based on information contained in the data stream, identifying source and destination.

ERSPAN TUNNELING & DE-TUNNELING
Integrate the X2-12800G as a single, centralized point for ERSPAN tunneling and de-tunneling in a monitoring system based on data ERSPAN encapsulation.

PROFITAP

USE CASES

- Balance traffic over multiple monitoring and security tools: allows incoming traffic to be distributed evenly and dynamically across multiple output ports.
- Replicate traffic to multiple monitoring and security tools: outputs copies of incoming traffic to multiple output ports.
- Aggregate multiple traffic streams into higher speed links.
- Filter specific parts of the traffic based on a wide array of allow and drop rules to ensure the appropriate traffic is sent to the appropriate tools.

- Optimize bandwidth & storage utilization and ensure security compliance by removing payload (packet slicing) irrelevant for network analysis.
- Remove packet duplicates and provide a substantial reduction in data traffic volume.
- Filter on IP-based communication in GTP sessions.
- Improve quality of latency analysis with accurate timestamps for every network packet.

TECHNICAL SPECIFICATIONS

CONNECTORS

32 x 400GbE QSFP-DD ports
1 x RJ45 out-of-band management (10/100/1000M)
1 x USB 3.0 Type-A
1 x mini-USB console port (RS232)

DIMENSIONS (WxDxH)

440 x 515 x 44 mm — 17.32 x 20.28 x 1.73 in

INCLUDED ACCESSORIES

2 x 1600W 80+ Platinum 100–240 VAC 50–60 Hz PSUs
(AC model) or 2 x 1600W -40–60 VDC (DC model)
2 x C13 AC power cords
1 x mini-USB to RS-232 cable
1 x Rack mounting kit

LEDS

1 x System status
1 x Fan status
1 x PSU status
1 x PWR status

WEIGHT

11.7 kg — 25.8 lbs

COMPLIANCE

RoHS
CE
FCC

HIGHLIGHTS

- Aggregation, replication, L2-L4 filtering, VLAN tagging and stripping, MPLS stripping and load balancing (any-to-any, any-to-many, many-to-many)
- Up to 6000 port-to-port filters
- Local and remote management (CLI, SSH, GUI, SNMP, Syslog, TACACS+/RADIUS/LDAP authentication)
- Centralized authentication via Profitap Supervisor (local users, TACACS+, RADIUS, LDAP)
- Configuration automation with Ansible
- RESTful API support
- Flexible role-based management access
- In-line mode and in-line tool sharing
- Supports 10/25/40/50/100/200/400G
- Combined ports availability up to 32 x 400G, 64 x 200G, 128 x 100G, 256 x 50/25/10G, 64 x 40G
- Redundant, hot-swappable PSUs and fan modules

ORDER REFERENCES

Base licenses cover the following key features: Aggregation, Replication, L2–L4 filtering, GTP IP filtering, Load balancing, Packet slicing, Timestamping (ERSPAN), VLAN tagging, VLAN stripping, VXLAN de-tunneling, GRE de-tunneling and ERSPAN tunneling and de-tunneling.

BASE LICENSE	DESCRIPTION
X2-12800G-16-AC	HD NPB, 16 x 400G QSFP-DD, 2 x 1600W, 100–240 VAC PSUs
X2-12800G-32-AC	HD NPB, 32 x 400G QSFP-DD, 2 x 1600W, 100–240 VAC PSUs
X2-12800G-16-DC	HD NPB, 16 x 400G QSFP-DD, 2 x 1600W, -40–60 VDC PSUs
X2-12800G-32-DC	HD NPB, 32 x 400G QSFP-DD, 2 x 1600W, -40–60 VDC PSUs
X2-12800G-UNLK	HD NPB, upgrade from half port to full port license

| WARRANTY AND MAINTENANCE	
X2-12800G-WAR-1YR	X2-12800G extended warranty — 1 year
X2-MAIN-1YR	X2-12800G extended maintenance — 1 year (software updates, professional support)

X2-Manager is a web-based interface integrated in every X2-12800G unit, allowing easy access to the configuration and monitoring of X2-12800G settings and behavior from any OS or platform.
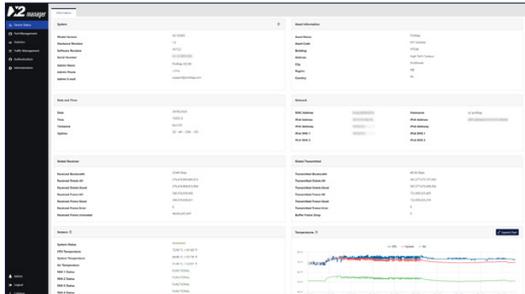
DEVICE STATUS

Device status offers a quick overview of operational statistics related to the packet broker hardware. Measured temperatures are recorded with a history of 72 hours, to allow filtering back in time on temperature statistics.
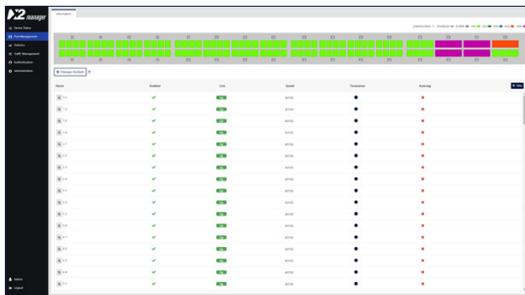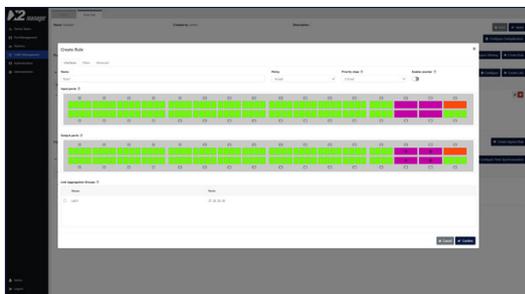
PORT MANAGEMENT

Port management offers instant overview of port status and speed. Users control the configuration of all QSFP modules, where each module offers additional information in the specific status section.

PORT STATISTICS

Port statistics displays and monitors the statistics counter for each of the device interfaces. Users can view or export this information for a later analysis. It is also possible to easily compare the traffic bandwidth on each port.

TRAFFIC MANAGEMENT

Define how the traffic will flow through the device interfaces. Using a direct control interface the user will be able to define aggregation, duplication and filtering rules. Advanced actions can be defined to manipulate the traffic, adding label information or stripping undesired headers.