

X2-2010G

PROVIDES THE DATA THAT COUNTS FOR NETWORK MONITORING

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

The Profitap X2-2010G is a high-end, high-density Network Packet Broker with a total throughput of 2 Tbps, offering packet slicing, timestamping, GRE de-tunneling, VXLAN de-tunneling, ERSPAN de-tunneling, and many more features. All X2-Series advanced features operate simultaneously at wirespeed without the need for a co-processor.

Featuring 48 x 10/25G SFP28 and 8 x 40/100G QSFP28 ports, the X2-2010G provides aggregation, replication, powerful filtering with up to 6000 non-conflicting rules, all in a single 1U rack unit.



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 X2-2010G as a single, centralized point for ERSPAN tunneling and de-tunneling in a monitoring system based on data ERSPAN encapsulation.



PACKET DEDUPLICATION

Optimize network efficiency and traffic storage eliminating redundant packet copies.

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

48 x SFP28 ports
8 x QSFP28 ports
1 x RJ45 management port
1 x RJ45 console port
1 x USB 2.0 port

DIMENSIONS (WxDxH)

440 x 460 x 44 mm — 17.32 x 18.11 x 1.73 in

INCLUDED ACCESSORIES

2 x 850 W, 80+ Platinum, 100–240 VAC, 50–60 Hz PSUs
2 x C13 AC power cords — 1 x RJ45 to serial port adapter
1 x Rack mounting kit

LEDS

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

WEIGHT

8.4 kg — 18.5 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 authentication)
- Centralized authentication via Profitap Supervisor (local users, TACACS+, RADIUS)
- Configuration automation with Ansible
- RESTful API support
- Flexible role-based management access
- In-line mode and in-line tool sharing
- PTPv2 time synchronization
- Supports 10G, 25G, 40G, 100G
- Supports 4 x 10G, 4 x 25G, and 2 x 50G splits on QSFP28 ports via fanout cables
- 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

X2-2010G-244
X2-2010G-488
X2-2010G-UNLK

DESCRIPTION

X2-2010G NPB with activation license, 24 x 10/25G SFP28, 4 x 40/100G QSFP28
X2-2010G NPB with activation license, 48 x 10/25G SFP28, 8 x 40/100G QSFP28
HD NPB, upgrade from half port to full port license

ADVANCED LICENSABLE FEATURES

X2-2010G-LIC-D

DESCRIPTION

De-duplication license

WARRANTY AND MAINTENANCE

X2-2010G-WAR-1YR
X2-MAIN-1YR

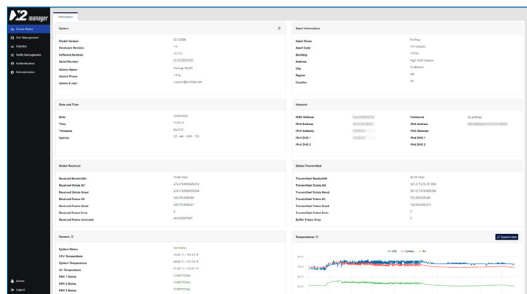
DESCRIPTION

X2-2010G extended warranty — 1 year
X2-2010G extended maintenance — 1 year (software updates, professional support)





X2-Manager is a web-based interface integrated in every X2-2010G unit, allowing easy access to the configuration and monitoring of X2-2010G 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.

The screenshot shows the 'Port Management' page in X2 Manager. It displays a table with columns for 'Port', 'Status', 'Speed', 'Type', and 'Setting'. The table lists various ports and their current status and speed. The status is indicated by a green dot for 'Up' and a red dot for 'Down'. The speed is shown in Gbps.

Port	Status	Speed	Type	Setting
10/1	Up	10 Gbps	10G SFP	10G SFP
10/2	Up	10 Gbps	10G SFP	10G SFP
10/3	Up	10 Gbps	10G SFP	10G SFP
10/4	Up	10 Gbps	10G SFP	10G SFP
10/5	Up	10 Gbps	10G SFP	10G SFP
10/6	Up	10 Gbps	10G SFP	10G SFP
10/7	Up	10 Gbps	10G SFP	10G SFP
10/8	Up	10 Gbps	10G SFP	10G SFP
10/9	Up	10 Gbps	10G SFP	10G SFP
10/10	Up	10 Gbps	10G SFP	10G SFP
10/11	Up	10 Gbps	10G SFP	10G SFP
10/12	Up	10 Gbps	10G SFP	10G SFP
10/13	Up	10 Gbps	10G SFP	10G SFP
10/14	Up	10 Gbps	10G SFP	10G SFP
10/15	Up	10 Gbps	10G SFP	10G SFP
10/16	Up	10 Gbps	10G SFP	10G SFP
10/17	Up	10 Gbps	10G SFP	10G SFP
10/18	Up	10 Gbps	10G SFP	10G SFP
10/19	Up	10 Gbps	10G SFP	10G SFP
10/20	Up	10 Gbps	10G SFP	10G SFP

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.

The screenshot shows the 'Port Statistics' page in X2 Manager. It displays a table with columns for 'Port', 'RX', 'TX', 'RX Error', 'TX Error', 'RX Discard', 'TX Discard', 'RX Queue', 'TX Queue', 'RX Buffer', 'TX Buffer', 'RX Drop', 'TX Drop', 'RX Reset', 'TX Reset', 'RX Reset', 'TX Reset'. The table lists various ports and their current statistics. The statistics are shown in Gbps.

Port	RX	TX	RX Error	TX Error	RX Discard	TX Discard	RX Queue	TX Queue	RX Buffer	TX Buffer	RX Drop	TX Drop	RX Reset	TX Reset	RX Reset	TX Reset
10/1	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/2	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/3	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/4	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/5	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/6	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/7	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/8	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/9	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/10	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/11	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/12	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/13	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/14	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/15	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/16	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/17	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/18	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/19	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/20	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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.

The screenshot shows the 'Traffic Management' page in X2 Manager. It displays a table with columns for 'Rule', 'Action', 'Priority', 'Status', 'Type', 'Filter', 'Queue', 'Buffer', 'Drop', 'Reset', 'Reset', 'Reset', 'Reset'. The table lists various traffic management rules and their current status. The status is shown in a color-coded manner.

Rule	Action	Priority	Status	Type	Filter	Queue	Buffer	Drop	Reset	Reset	Reset	Reset
10/1	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/2	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/3	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/4	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/5	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/6	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/7	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/8	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/9	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/10	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/11	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/12	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/13	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/14	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/15	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/16	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/17	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/18	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/19	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0
10/20	10 Gbps	10 Gbps	0	0	0	0	0	0	0	0	0	0

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.