



**CUBRO**  
NETWORK VISIBILITY

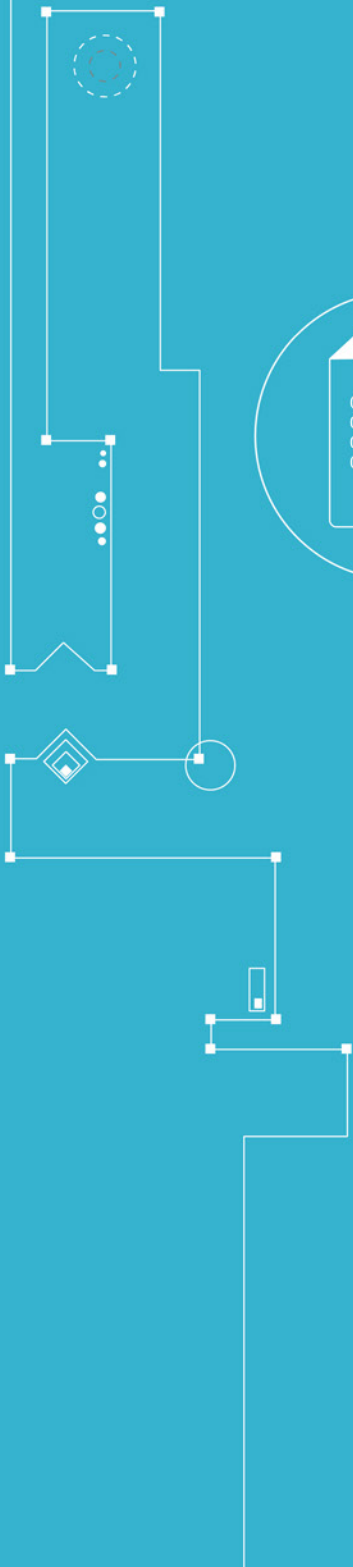
# AGG48600



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## DATA SHEET



# Network Packet Broker (NPB) At a glance

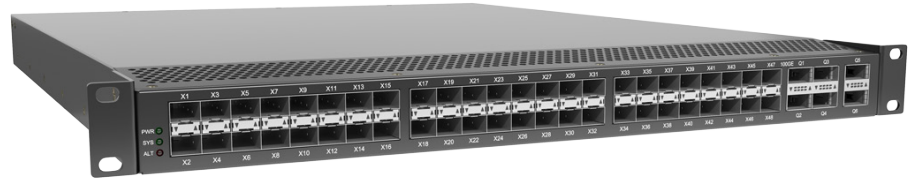
## Definition

A Network Packet Broker (NPB) is a switch-like device purpose-built to receive traffic from a variety of network sources (live link, TAPs, SPANs, mirror ports) and to filter, duplicate, and/or aggregate that traffic to monitoring and security tools.

## Advantages of AGG48600

- Filters and load-balances traffic from 10, 40 or 100 Gbps links to multiple 1 Gbps monitoring tools
- Aggregates multiple 1Gbps links to 10, 40, or 100 Gbps monitoring tools
- 48 x 1/10 Gbps (SFP/SFP+) and 6 x 40/100 Gbps (QSFP/QSFP28)
- QSFP28 ports support breakout to 4 x 10/25G
- Up to 4000 parallel rules
- Packet slicing support (64B, 128B, 192B)
- IPv6 support
- No additional port licensing fees or software feature licensing. All features and applications included in the unit price.
- 2-year base warranty period

## Product Overview



The Packetmaster AGG48600 is a high performance Layer 4 network packet broker that aggregates, filters, duplicates, and load balances network traffic to security, monitoring and management tools based on 4000 possible ACL rules. The Packetmaster AGG48600 is based on a programmable switching fabric. It is built with an advanced Cavium multi-core host controller. This platform allows all filtering features to be implemented at hardware level for unmatched throughput and performance.

## Functions / Benefits:

- Easy to configure via secure Web GUI
- Load balancing: hash-based, session aware load balancing, up to 128 load balancing groups
- Cubro Vitrum Management Suite: The AGG48600 is fully compatible with Cubro Vitrum, a centralized management platform for all Cubro network visibility solutions.
- Filtering on multiple parameters up to OSI Layer 4 including VLAN tags, IP addresses and TCP / UDP port numbers.

## Product Capabilities / Features

Link/Port Aggregation	Aggregation many to any, and any to many at all link speeds
100 Gbps traffic demultiplexer	Traffic can be easily distributed across 1G, 10G, 25G, and 40G links to monitor highly loaded 100 Gbps links.
Jumbo Frame Support	The Packetmaster supports jumbo Ethernet frames with a size of up to 16000 bytes.
Support of IPv4 and IPv6	Yes
Ports	48 x SFP/SFP+ 1 or 10 Gbps 6 x QSFP/QSFP28 40/100 Gbps 1 x 10/100/1000 Base-T (Management) 1 x RS232 Console
Configuration Communication	Web GUI, SNMP, RADIUS
Bandwidth	2160 Gbps backplane 100 % throughput without any packet loss
Aggregation latency	Average < 1 $\mu$ s for 64-byte frames
MTBF	178,125 hours
Different Power Versions	100-240 V AC power supply (DC power modules available). Supplied with two redundant power supply modules. The modules are hot-swappable.

AGG-48600 | ACLs | Ports | Binding | Advance | System | admin (Super)

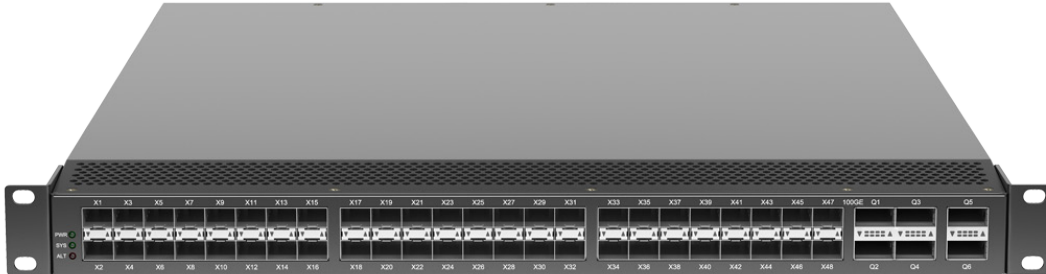
Interfaces List

Show/Hide Columns | Reset Statistics | Export Table as CSV

Name	Link State	Rx	Speed	ELag	In Acl	Rx Mbps	Rx Errors	Rx Packets	Rx Dropped	Rx KPPS	Tx Mbps	Tx Bytes	Tx Errors	Tx Packets	Tx Dropped
1	Up	On	1G		Step1	0.00	0	24674	0	0.00	0.00	0.0 B	0	0	0
2	Up		1G			0.00	0	0	0	0.00	0.00	0.0 B	0	0	0
10	Up		10G			0.00	0	0	0	0.00	0.00	382.0 B	0	2	0
11	Up		10G			0.00	0	0	0	0.00	0.00	367.0 B	0	2	0
12	Up		10G			0.00	0	0	0	0.00	0.00	777.0 B	0	5	0
13	Up		10G			0.00	0	0	0	0.00	0.00	1.0 KB	0	1	0
14	Up		10G			0.00	0	0	0	0.00	0.00	19.2 MB	0	24664	0
20	Up		10G			0.00	0	0	0	0.00	0.00	0.0 B	0	0	0
30	Up		10G		Step2	0.00	0	24672	0	0.00	0.00	19.2 MB	0	24672	0
31	Up		10G		Step3	0.00	0	24670	0	0.00	0.00	19.2 MB	0	24670	0
						0.00	0	57 715 467	0	0.00	0.00	57.7 MB	0	74 016	0

1 to 10 of 54 rows | 10 | 1

## Technical Data / Specifications



### Inputs\*

48 x 1 Gbps / 10 Gbps full duplex SFP Ports for any kind of SFP/SFP+

6 x 40 Gbps / 100 Gbps full duplex Ports for any kind of QSFP/QSFP28

\* Each port can be input and / or output depending on the application and configuration

\*All QSFP/ QSFP 28 ports support breakout cables to 4x10G or 4x25G interfaces

### Outputs\*

48 x 1 Gbps / 10 Gbps full duplex SFP Ports for any kind of SFP/SFP+

6 x 40 Gbps / 100 Gbps full duplex Ports for any kind of QSFP/QSFP+

\* Each port can be input and / or output depending on the application and configuration

\*All QSFP/ QSFP 28 ports support breakout cables to 4x10G or 4x25G interfaces

### Performance\*

- Performance up to 2,16 Tbps
- Non-blocking design
- Boot time from power on to working 180 sec
- Packet delay through processing constant at 700 ns

### Management

Management Port: (1) RJ45 10/100/1000 Mbit Configuration

### Operating specifications:

- Operating Temperature: 0°C to 40°C
- Storage Temperature: -10°C to 70°C
- Relative Humidity: 10% min, 95% max (non-condensing)

## Mechanical specifications:

Dimension (WxDxH): 443 x 559 x 44 mm

Weight: 11,7 kg

Airflow: Front-back

## Electrical specifications:

Input Power: 100-240V

Maximum Power Consumption: 220W

Power Supply Module: 2 (redundant & hot-swappable)

## Certifications:

Fully RoHS compliant

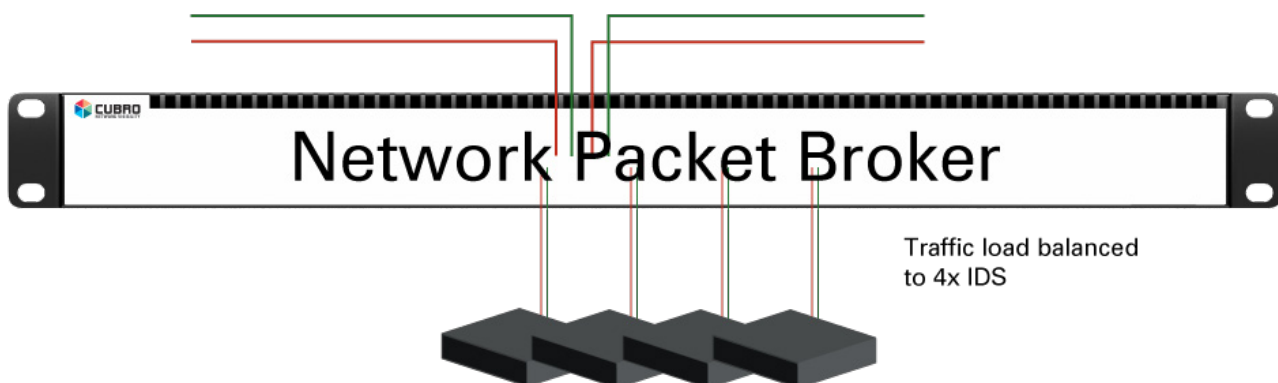
CE compliant

Safety - UL 60950-1 / CSA C22.2 60950-1-07 / IEC 60950-1 (2005) EN 60950-1 (2006)

## Applications / Solutions

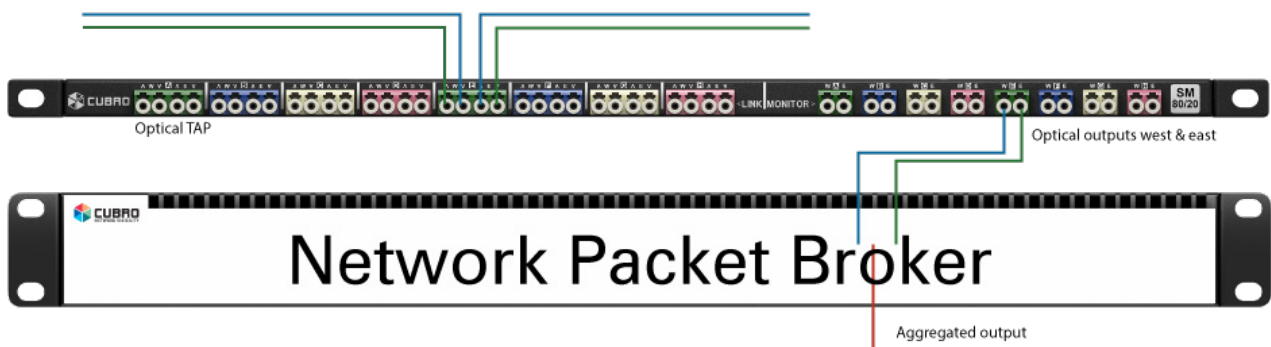
### Load balancing

The AGG48600 is connected inline to a 100 Gbit live link. The Packetmaster AGG48600 can load balance 100 Gbit traffic to several 1,10, 25, or 40 Gbit ports.



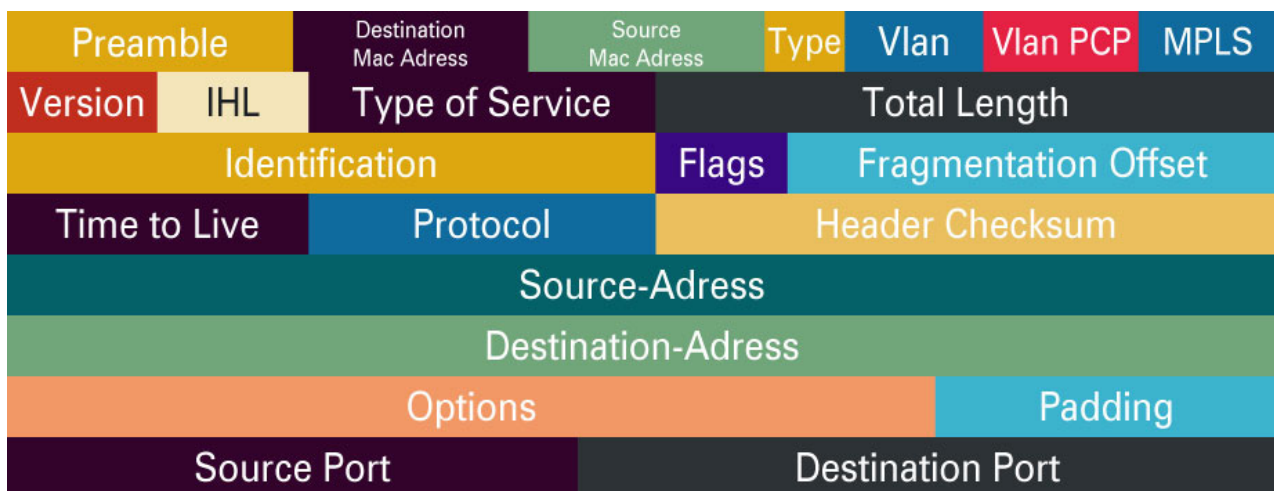
## Aggregation

The AGG48600 receives traffic from a 100G live link via the monitor ports of an inline TAP. The AGG48600 aggregates the Tx and the Rx sides of the duplex link to a single 100 Gbit port for monitoring purposes. By utilizing the filtering abilities of the AGG48600 the user can isolate only the traffic necessary to troubleshoot network problems.



## Monitoring and trouble shooting

The Packetmaster AGG48600 supports 4000 filters that can classify traffic. These filters can be used to redirect a selected part of the traffic to a low bandwidth monitoring tool, such as a 1G/10G packet analyzer to troubleshoot an issue on a 100 Gbit link (such as a routing problem).

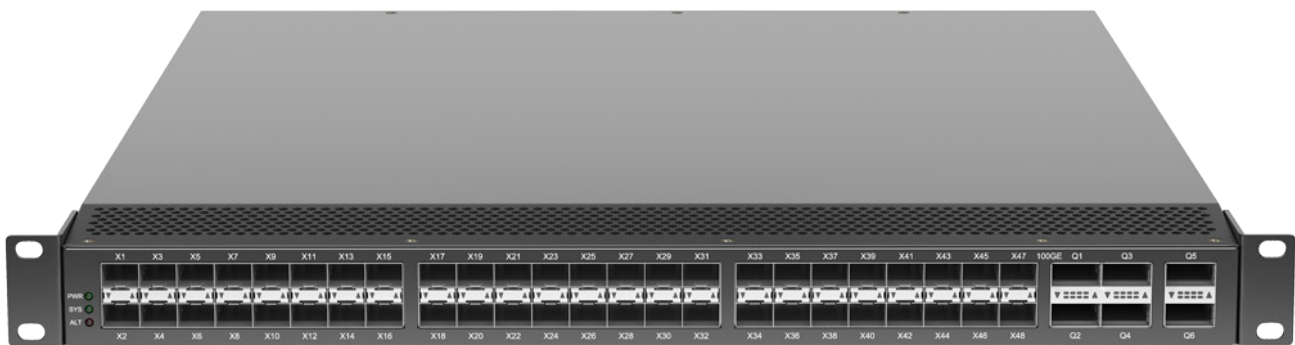


## Advanced Function Description

### Session meets packet:

Packet based filtering is not always sufficient. Session based filtering cannot be done with ASIC or FPGA and normal CPU is not capable of handling Terabits of traffic.

The combination of an AGG48600 with an EXA24160 (Sessionmaster) is an extremely powerful solution for Layer 7 session-aware applications.



### Application based filtering:

The combination of AGG48600 and EXA24160 offers a powerful solution for layer 7 session-aware filtering. This means it is possible to filter on applications, keywords, or any wanted Regex. This shown application can support up to multiple 100 Gbps traffic, depending on how many session fabrics are used.



The AGG48600 aggregates, filters and load balances the traffic and forwards the traffic to the session fabric. The session fabric analyzes the traffic and tags it based on application key before forwarding it back to AGG-48600. The traffic is sent to other tools for more inspection.



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## Ordering Information

### Product Components:

- Cubro Packetmaster AGG48600
- AC or DC power supply modules
- Power cord
- Transceivers not included

Part Number	Description
CUB.AGG-48600	Packetmaster AGG-48600, 48x1G/10G and 6x40G/100G, AC powered
CUB.AGG-48600-DC	Packetmaster AGG-48600, 48x1G/10G and 6x40G/100G, DC powered

For more information please check our website [www.cubro.com](http://www.cubro.com).