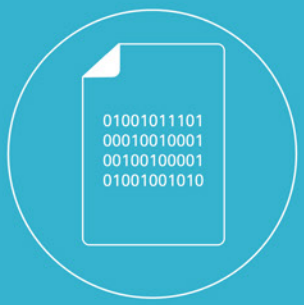
CUBRO
NETWORK VISIBILITY



EXA48800

DATA SHEET

Published at Cubro, October 2025

Please refer to the latest version of this document on our website
to ensure you have the most up-to-date information.

Advanced Network Packet Broker
At a glance

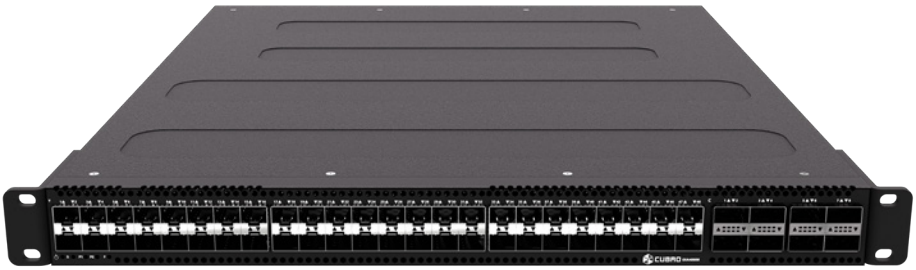
Definition

An Advanced Network Packet Broker 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 EXA48800

- Filters and load-balances traffic from 1, 10, 25, 40 or 100 Gbps links to multiple monitoring tools
- Aggregates multiple inputs with different interface speeds to one or more output ports / monitoring tools
- 48 x 10/25 Gbps (SFP/SFP+) and 8 x 40/100 Gbps (QSFP/ QSFP28) ports
- 40/100 Gbps ports support break-out to 4 x 10/25 Gbps
- IPv6 support
- Tunnel removal and inside tunnel filtering
- Deduplication to remove unwanted packets
- Complex filtering inside packet payload
- Open for 3rd party transceivers
- 2-year base warranty period

Product Overview



The Advanced Packetmaster EXA48800 is a high-performance network packet broker that aggregates, filters, replicates, and load balances network traffic to monitoring, security, and management tools. It combines an advanced multi-core, industry leading programmable switch chip architecture with two extremely powerful ARM CPUs into a single cabinet. This approach offers customers a greater choice and more functionality as well as flexibility and makes the unit ideal for advanced visibility and security applications. The multi- layer filtering and tunnel removal capabilities of the EXA48800 makes the unit a perfect choice for any overlay network visibility application.

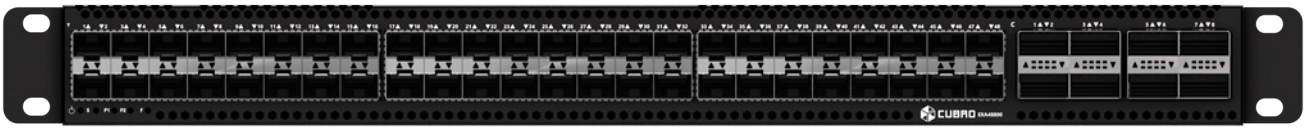
Functions / Benefits:

- Easy to configure: Secure Web GUI / REST API
- Load balancing: Hash-based, session aware load balancing on either outer or inner tunnel headers
- Ultra high port density: Supports up to 8 x 40/100 Gbps or 32 x 25/10 Gbps ports and 48 dedicated SFP+/ SFP28 ports for 10G or 25 Gbps
- Supports 4 x 1 Gbps ports
- Tunnel termination and filtering on multiple parameters including inner tunnel (VXLAN, GTP, ERSPAN, MPLS, etc)
- Regex filtering to search for complex ASCII strings or Hex patterns anywhere in packets
- Deduplication function
- Data Masking
- SNMPv2c and SNMPv3 support

Product Capabilities / Features

Number of Ports	44 x SFP+/SFP28 for 10/25 Gbps; 4 x SFP/SFP+/SFP28 for 1/10/25 Gbps; 8 x QSFP/QSFP28 for 40/100 Gbps - these ports can be used in break-out mode to support 4 x 10/25 Gbps
Link/Port Aggregation	1:1; 1:n; n:1; n:n - at all port/link speeds
Traffic distribution/load balancing	Traffic can be easily distributed to single ports, parallel ports or load-balancing groups
Tunnel termination and inner tunnel filtering	MPLS, MPLS over UDP, GRE, GTP, ERSPAN, VXLAN
Deduplication	Supported at all ports and port speeds
Data masking	Overwrite any part of a packet to comply with GDPR regulations
Packet Buffer	22 MB
Supervision / Logging	SNMPv2c and SNMPv3; Syslog and Activity Log function
Unit Control	WebUI via https and REST API via 10/100/1000B-T management interface
MTBF	189.858 hours
Electrical Power	Dual 100-240 V AC or 36-72 V DC available
Jumbo Frame Support	The EXA48800 supports jumbo Ethernet frames with a size of up to 9192 bytes.
Cubro Vitrum Support	Yes

Technical Data / Specifications



Ports*

- 4 x 1 Gbps / 10 Gbps / 25 Gbps full duplex ports for any kind of SFP/SFP+/SFP28
- 44 x 10 Gbps / 25 Gbps full duplex ports for any kind of SFP+/SFP28
- 8 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/ QSFP28 ports support breakout cables to 4 x 10G or 4 x 25G interfaces

Performance

- Performance up to 4000 Gbps
- Non-blocking design
- Boot time from power on to working 300 sec

Management

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

Operating specifications:

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

Mechanical specifications:

- Dimension (WxDxH): 444 x 538 x 44 mm
- Weight: 12,5 kg
- Airflow: Front-back

Electrical specifications:

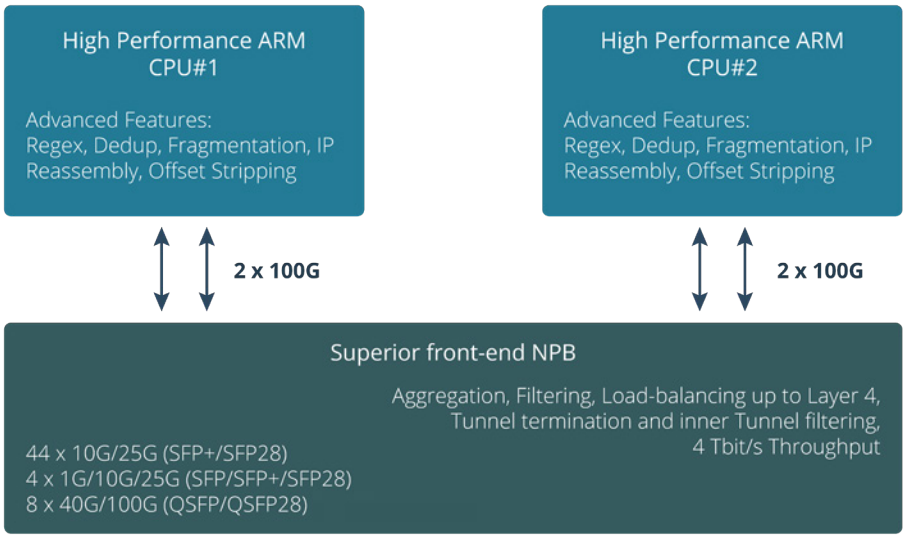
- Input Power: 100-240 V AC or 36-72 V DC
- Maximum Power Consumption: 450W
- Power Supply Module: 2 (redundant & hot- swappable)

Certifications:

- Compliance and Safety: EN 61000-3-2:2019; EN 61000-3-3:2013/A1:2019; EN 62368-1:2014; EN 55035/2017/A11:2020;
- EN 55032:2015/A1:2020
- EU Directives compliance:2014/35/EU and 2014/30/EU RoHs Compliance: RoHS 6

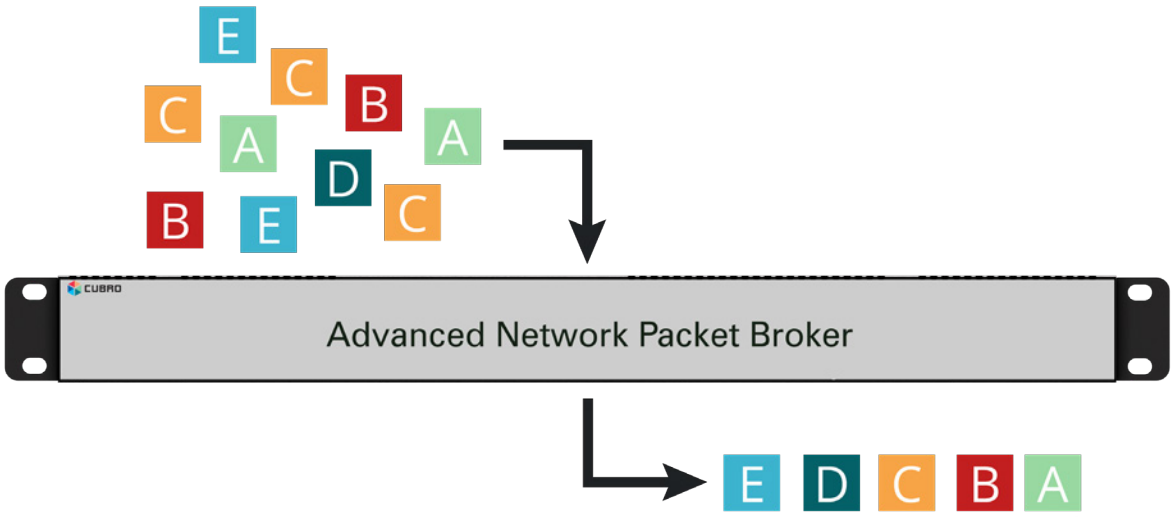
Applications and Solutions

Architecture Design



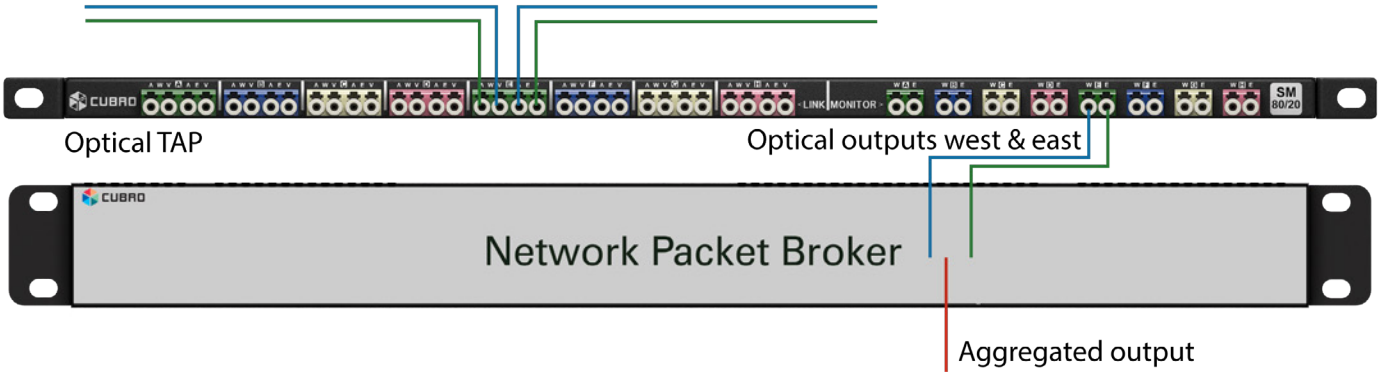
Deduplication

The EXA48800 is capable of finding and deleting duplicate packets. Duplicates can cause a lot of issues. The obvious issue is that double the amount of data requires double the amount of processing power, memory, power, etc. However, the main issue is false positives: errors that are not really errors or threats that are not actually threats. One common way that duplicates effect analysis is by an increase in TCP out-of-order or retransmission warnings. Debugging these issues takes a lot of time, usually the time an overworked, understaffed network operations or security team does not have. In addition, any analysis performed based on this information is probably not reliable, so this only exacerbates the issue. The Cubro EXA48800 offers a deduplication function to eliminate duplicated packets and protect monitoring equipment from getting overloaded.



Aggregation

The EXA48800 is able to receive traffic from a single or multiple 1/10/25/40 or 100 Gbps link(s) via the monitoring ports of an inline tapping device. The incoming traffic can be further aggregated to a single or multiple outputs to connect analyzers and monitoring tools as required. The example below shows how the EXA48800 aggregates upstream and downstream traffic of a 100 Gbit link to a single output port for more economical usage of connected traffic probes/ analytics systems.

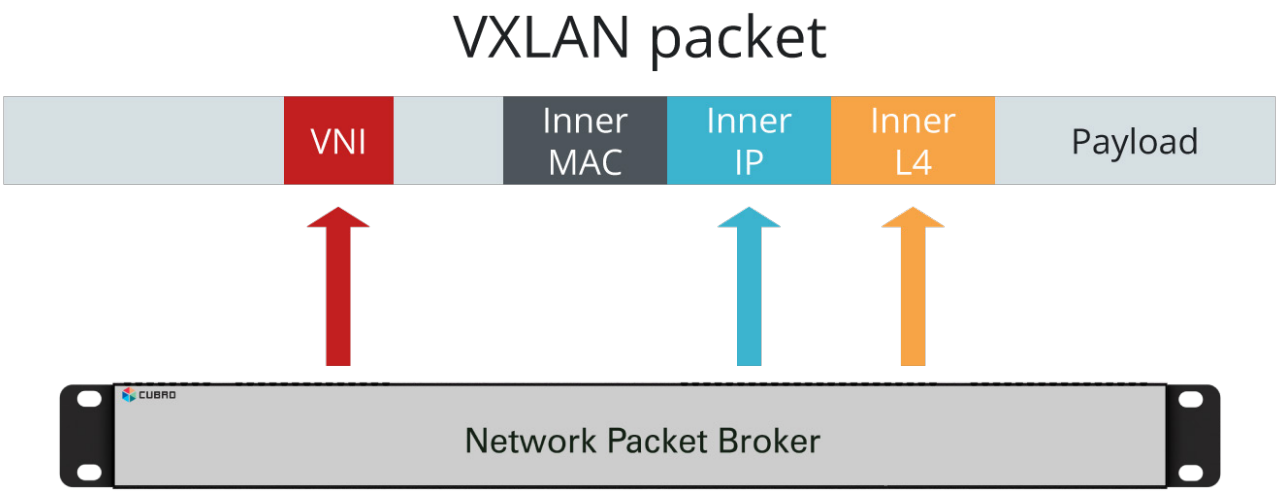


By utilizing the various filtering capabilities of the EXA48800, the user is able to further reduce traffic volume that needs to be processed, thus enabling quicker and more accurate analysis and troubleshooting. Moreover, incoming traffic can be VLAN tagged per physical port to allow easy identification at which physical port a packet original arrived.

State-of-the-art tunnel functionality

The EXA48800 supports the termination of various tunnels such as:

- ERSPAN II and III
- GRE
- GTP
- MPLS over UDP
- VXLAN

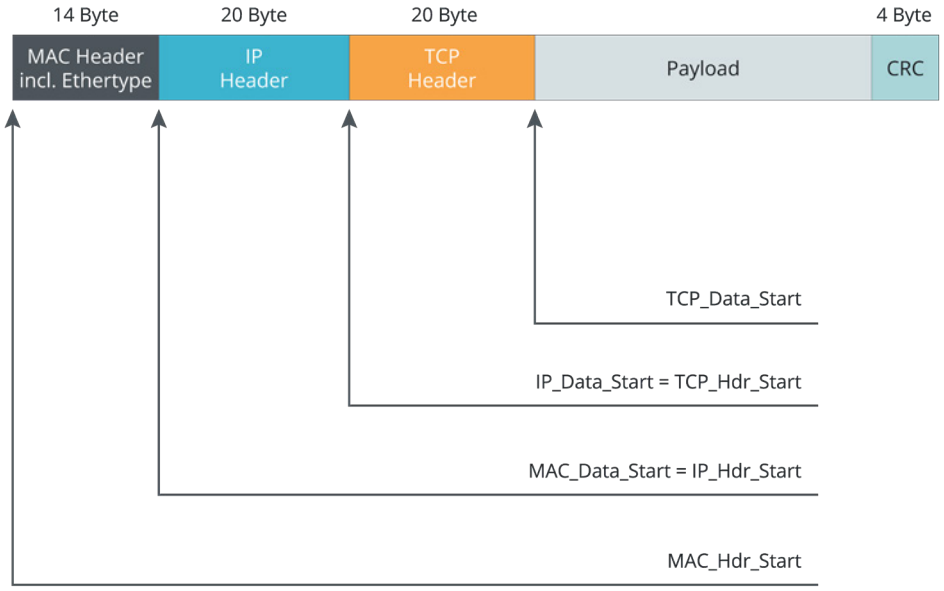


Every port of the EXA48800 supports an independent MAC and IP setup. Thus, the EXA48800 can be used as an active tunnel end-point. Besides tunnel termination, it also allows filtering inside tunnels. This superior functionality makes the EXA48800 perfectly suited for any modern overlay network.

Offset Stripping

Offset Stripping is a feature that removes a specific portion of a packet based on predefined settings. This helps optimize network traffic by discarding unnecessary data while preserving essential packet structures.

The image below shows the position of each starting point option available on the EXA48800.

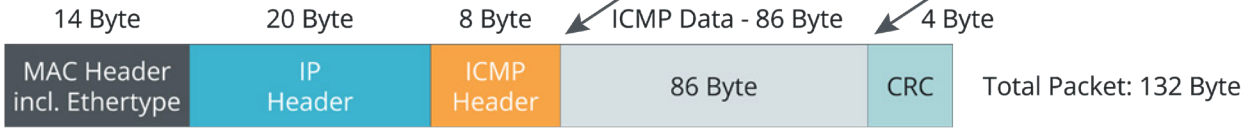


As an example, the packet below with 1046 Bytes size is stripped to 132 Bytes after:

- Offset Type: MAC_Hdr_Start
- Offset Length: 42
- Strip Length: 914

Original Input Packet

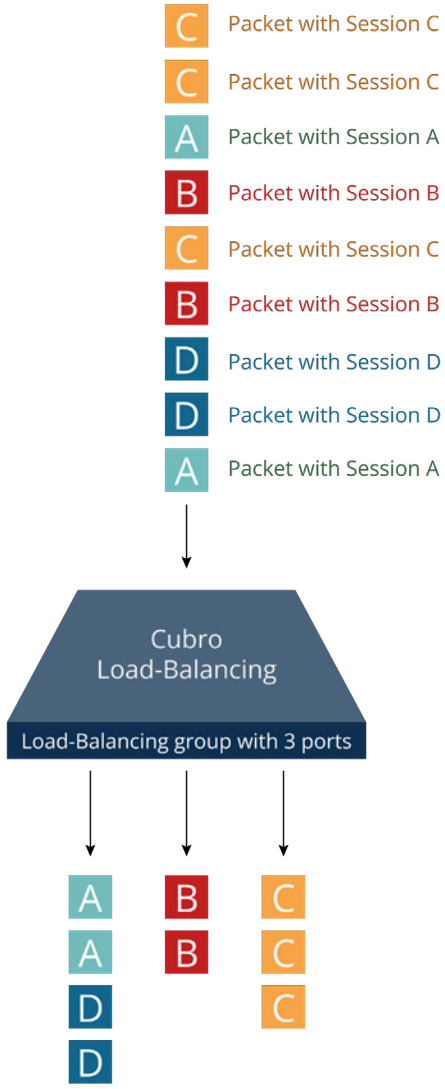
Output after Stripping by Offset: MAC_Hdr_Start. Offset Length 42, Strip Length 14



Session-aware load-balancing

Load-balancing is a vital function to distribute traffic across different monitoring tools evenly and correctly. The Cubro EXA48800 supports Session-Aware Load balancing that allows every packet belonging to the same conversation/flow to be sent to the same physical output port within a load-balancing group. This ensures that connected packet sniffer or other monitoring tools get every packet of a given conversation. The EXA48800 maintains the association of packets with each flow or conversation between any two network endpoints such that all traffic from a given flow will be output from a consistent monitor port within a load balanced group.

Flow association is done by examining selected fields within each packet and performing a mathematical algorithm called hash key calculation. The result of the calculation is used to consistently separate and distribute traffic to specific ports within a load balanced group. Depending on the requirements, the EXA48800 allows different hash key calculations methods ensuring that packets always arrive at the correct interface of the monitoring appliance.



Packets of a session stay together session-aware

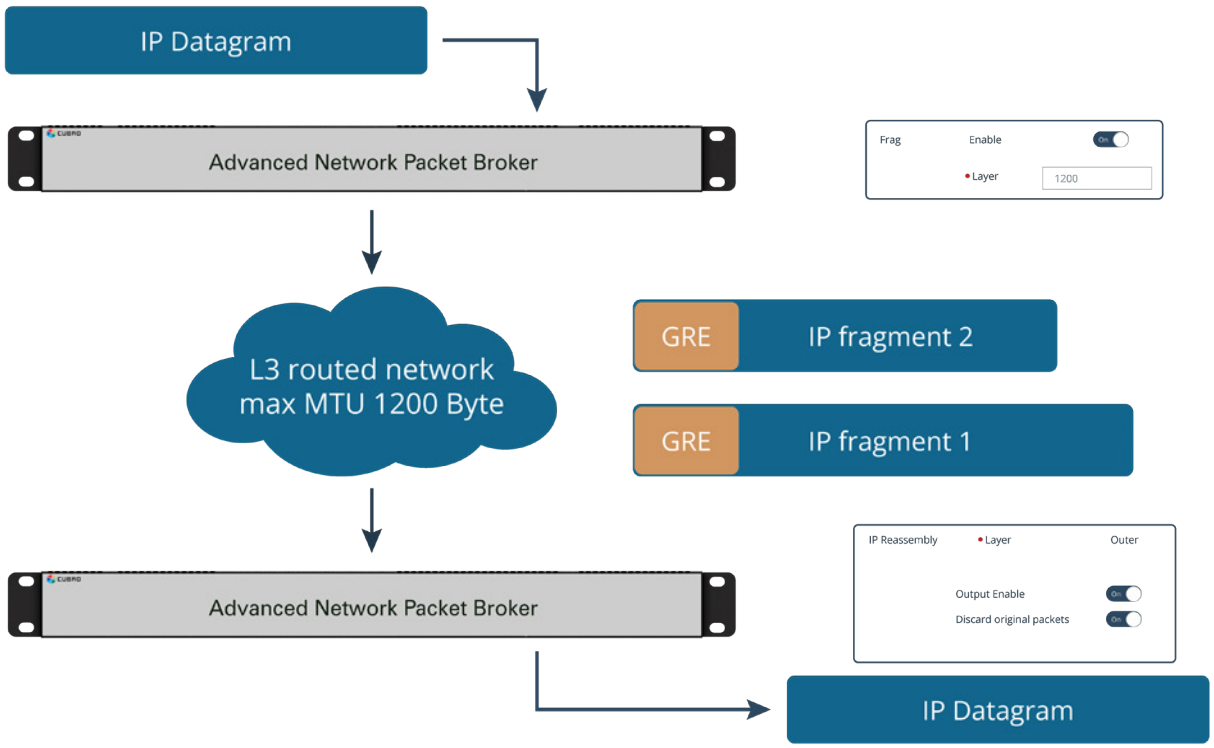
Regex Filtering (User Defined Filtering)

The Regex filter function of the EXA48800 is the perfect solution to find packets that cannot be found by using usual L2 to L4 packet parameters like IP Address, Protocol or UDP/TCP port number. Regex is the perfect alternative for ASCII string as well as Hex pattern filtering.

- Searches in the whole packet including packet header
- ASCII string with case insensitive support
- Hex pattern to filter on specific protocol messages
- Flow-aware - once the filter has matched, it finds all packets that belong to this traffic flow

It can also be combined with Data masking to identify relevant packets and overwrite sensitive content inside a packet.

IP Reassembly function



IP fragmentation is the process of breaking down a large IP datagram (packet) into smaller pieces, called fragments, to fit across network links with a smaller Maximum Transmission Unit (MTU) size. The EXA48800 supports fragmentation to any selectable MTU size between 512 Byte and 2048 Byte. In addition, fragmented packets can be encapsulated into a GRE tunnel to be transmitted over a routed Layer 3 network.

On the receiving end the EXA48800 is able to reassemble the received IP fragments into original packets so that original information can be delivered to connected monitoring tools.

Other Advanced Features

Due to its multi-core ARM CPU and the special software suite included, the EXA48800 takes network visibility to the next level by supporting:

- Data-masking to protect sensitive data and comply with GDPR
- TCP Re-ordering function
- Offset Stripping for maximum flexibility when headers need to be removed; it can also be used as packet slicing function for any packet size
- Full ACL filtering capabilities
- VLAN (up 15 tags), MPLS (up to 15 labels), GRE, VXLAN (up to 2 VNIs) stripping

Ordering Information

Product Components:

- Cubro EXA48800
- AC/DC power supply
- European power cord
- Transceivers not included

Part Number	Description
CUB.APM-EXA48800-12	Advanced Packetmaster EXA48800, 12x10G/25G and 8x40G/100G, AC powered
CUB.APM-EXA48800-24	Advanced Packetmaster EXA48800, 24x10G/25G and 8x40G/100G, AC powered
CUB.APM-EXA48800-36	Advanced Packetmaster EXA48800, 36x10G/25G and 8x40G/100G, AC powered
CUB.APM-EXA48800-48	Advanced Packetmaster EXA48800, 48x10G/25G and 8x40G/100G, AC powered
CUB.APM-EXA48800-12-DC	Advanced Packetmaster EXA48800, 12x10G/25G and 8x40G/100G, DC powered
CUB.APM-EXA48800-24-DC	Advanced Packetmaster EXA48800, 24x10G/25G and 8x40G/100G, DC powered
CUB.APM-EXA48800-36-DC	Advanced Packetmaster EXA48800, 36x10G/25G and 8x40G/100G, DC powered
CUB.APM-EXA48800-48-DC	Advanced Packetmaster EXA48800, 48x10G/25G and 8x40G/100G, DC powered
CUB.APM-EXA48800-12U	Advanced Packetmaster EXA48800 12x10G/25G Port Upgrade

Spare parts:

Part Number	Description
CUB.PM-AC-G	AC Power supply module for CUBRO EX48800/EXA48800
CUB.PM-DC-G	DC Power supply module for CUBRO EX48800/EXA48800

For more information please check our website **www.cubro.com**.