



**CUBRO**  
NETWORK VISIBILITY

# CUBRO OMNIA120

## DATA SHEET



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01001011101  
00010010001  
00100100001  
01001001010
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## Omnia120

### At a glance

#### Definition

The Omnia line is a collection of purpose-driven visibility and monitoring hardware paired with feature stacks developed over years of experience and engineering that encompass Cubro's Packetmaster (L2-4), Sessionmaster (L5+), and Appmaster (3rd party software) functionality.

#### Advantages of Omnia120

- Aggregate, filter, and load-balance traffic from 1, 10, 25, 40 or 100 Gbps links to multiple monitoring tools
- 2 x 24-Core ARM CPU
- 16GB Memory per CPU
- Internal M.2 SSD
- Multiple expansion options
- Support for any SFP and SFP+ (also 10 Gbit BASE-T)
- Flexible prices model due to port licensing.
- 2-year warranty period

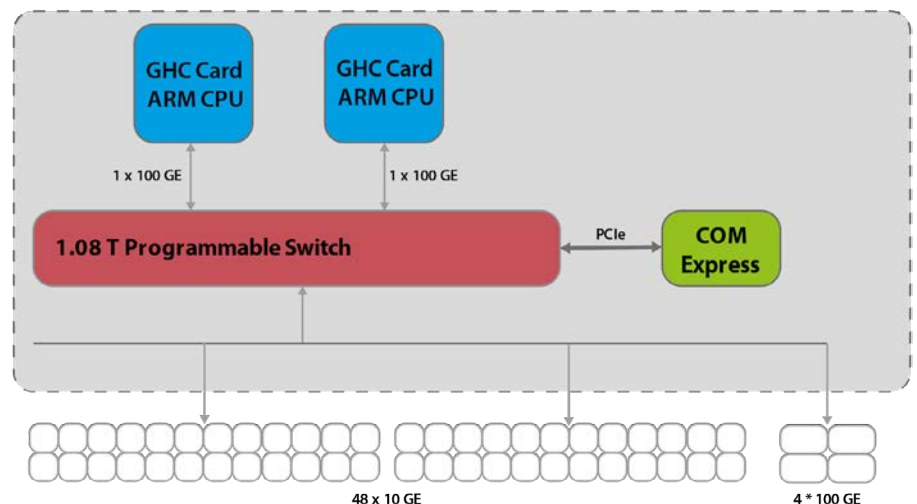
## Product Overview



Omnia takes Cubro's experience in Network Visibility and Monitoring and pairs it with an evolution of the Omnia10 platform design. The result is a lineup of purpose-driven hardware with units covering applications of 1Gbps up to multi-100Gbps performance. Omnia combines feature stacks developed over years of experience and engineering, such as those of Advanced Network Packet Brokers, with high-performance multicore CPUs allowing for numerous first-party and third-party software applications, including those from partners and the open-source community. This approach offers customers greater choice and more functionality.

Omnia120 is an Enterprise Visibility node with high end L5 packet forwarding silicon, in combination with two ARM multicore CPUs for advanced visibility and security applications.

The unit comes with 48 x 10/1 Gbit SFP+ and 4 x 100/40 QSFP28 or 4 x 4 10/25 Gbit with breakout. The port licensing model allows running the Omnia120 also as a 24 x 10/1 SFP+ unit with or without the 4 x QSFP28 ports. Each of the two ARM CPUs are connected via a full duplex 100 Gbit interface for maximum application performance.

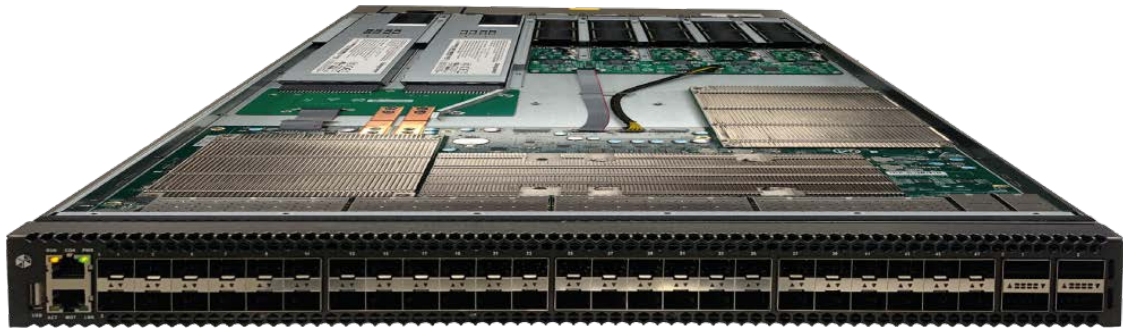


## Functions / Benefits

- Versatile device with multiple software options to fill many roles
- NetFlow generation and collector
- Deep Packet Inspection (DPI)
- Advanced Network Packet Broker
- Network analytics + Threat Detection
- Supports third-party software and custom application

## Product Capabilities / Features

Link/ Port Aggregation	Aggregation many to any, and any to many at all link speeds
100G distribution/load balancing	Traffic can be easily distributed across 1G, 10G, 25G, and 40G links to monitor highly loaded 100 Gbps links
Jumbo Frame Support	The Omnia120 supports jumbo Ethernet frames with a size of up to 16000 bytes on the Silicon switch and up to 9000 bytes on the ARM CPUs
Support of IPv4 and IPv6	Yes
Ports	48 x 1/10G SFP/SFP+ and 4 x QSFP 40 Gbps or QSFP28 100 Gbps 1 x 10/100/1000 Base-T (Management) 1 x RS232 Console
Configuration / Communication	WEB GUI, REST API, CLI
Aggregation latency	Average < 700 ns for 64-byte frames
MTBF	160.098
Packet Buffer	24MB on switch layer
Different Power Versions	100-252 V AC power supply (DC power modules available)
System Memory	48Gbyte per CPU (total 96Gbyte)
System Storage	2Tbyte M.2 NVMe SSD



## Technical Data / Specifications

### Operating specifications

Operating Temperature: 0°C to 45°C  
Storage Temperature: -10°C to 70°C  
Relative Humidity: 10% min, 95% max (non-condensing)

### Mechanical specification

Dimension (WxDxH): 440 x 560 x 44  
Weight: 12,9 kg  
Airflow: Front-back

### Electrical specifications

Input Power: 100-240V, 2A, 47-63 Hz (AC version)  
Maximum Power Consumption: 550W

### Certifications

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

### Ports

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

4 x 40/100 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 4 x 10G or 4 x 25G interfaces

## Management

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

## Indicators

(All ports) Link LEDs (All ports) Activity LEDs

## Applications / Solutions

### Deduplication

The Omnia120 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 affect 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 Omnia120 offers a deduplication function to eliminate duplicated packets and protect monitoring equipment from getting overloaded.

### Deep Packet Inspection

The Omnia120 is capable of performing Deep Packet Inspection using Cubro's custom DPI engine. Ever-increasing amounts of encrypted network traffic has created a situation where IP address and port numbers are no longer sufficient for identifying traffic and what protocols are in use. Cubro's DPI engine can identify 4000 different applications, even when they are ciphered, providing invaluable information to analytics, policy enforcement, and security tools.

### Advanced Network Packet Broker

The Omnia120 can be utilized as a full-featured advanced network packet broker incorporating the functions of Cubro's Packetmaster and Sessionmaster feature stacks. Such functions include aggregation, traffic replication, filtering, header stripping, active tunnel termination, load-balancing, deduplication, and much more.

## Additional Information

AppMaster, custom applications, and scripting.

The Omnia120 takes advantage of Cubro's AppMaster, a full-fledged Ubuntu Linux environment capable of supporting a wide range of open-source software as well as applications from Cubro's AppMaster partners, such as NTOP and QXIP.

AppMaster also allows users to build custom applications with various programming and scripting languages. The Omnia120 also features a REST API further enhancing the ability to automate tasks and integrate functions with other devices within the network.

## Ordering Information

Part Number	Description
CUB.OM-120	Omnia120 Appliance, 24 x 10G, 2 x CPU
CUB.OM-120-24x10	Additional 24 x 10G for Omnia120
CUB.OM-120-4x100	Additional 4 x 100G for Omnia120
CUB.OM-120-SW-SM1	Omnia120 Sessionmaster License for CPU1
CUB.OM-120-SW-SM2	Omnia120 Sessionmaster License for CPU2

## Spare parts:

Part Number	Description
CUB.PM-AC-E	AC Power supply module for CUBRO EX32100A/EX48600/OMNIA120/EX48200 series
CUB.PM-DC-E	DC Power supply module for CUBRO EXA32100A/EX48600/OMNIA120/EX48200 series

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