Allegro Network Multimeter x310 Series
1310 / 3310 / 5310 / 7310
Datasheet

Analysis and Troubleshooting Tool for Network Administrators

✓ High analysis and capture rates (10 / 40 / 100 / 200 Gbit/s)

✓ Up to 307 TB SSD with up to 240 Gbit/s recording

✓ Analyzes and correlates all metadata from L2 to L7

✓ Real-time live data and back-in-time analysis

✓ 100 % reliable full capture-to-disk solution

✓ Selective and retrospective Pcap extraction

✓ Development and support in Germany

Extent of Application: Enterprise Core Networks, Data Centers, ISP Networks
The x310 series, consisting of the Allegro 1310, 3310, 5310 and 7310 models, is optimized for the analysis, monitoring, verification and troubleshooting of network connections spanning from 1 G to 200 G. These systems are designed for very high (real-time) analysis and packet capture data rates, making them ideal for use in large data centers, core networks and robust ISP infrastructures.

Real-time Visibility and In-Depth Statistics for all Connections
Empowered by Allegro Packets' intuitive web-interface, the x310 series provides granular visibility and selective packet filtering across L2 to L7. Analysis can be performed in real-time and back-in-time for a granular view of the network. The GUI offers several comprehensive overviews as well as detailed statistics on network quality, IPs, MACs, VLANs, Multicast, QoS, TCP, TLS, RTP, Profinet, VoIP, HTTP and many more. With quick and easy set-up, the Allegro Network Multimeter is ready for immediate use to find the root cause of a problem in the network.

Traffic Recorder and Back-in-Time Playback
Featuring back-in-time capability, the Allegro x310 series facilitates precise selection and extraction of recorded data. Such pre-filtered pcap data can be effortlessly extracted with a simple click. Furthermore, selected data can be individually reimported into the network, enabling the recreation and replay of specific events or security incidents, e.g., with IDS / IPS systems.

Expandable Ethernet Ports, In-Memory Database and Ring Buffer
Designed to adapt to your network's unique needs, the x310 series can be customized for additional capture port connections and storage options. Each device comes equipped with 2 x SFP+ ports and the 3 remaining extension slots can be used to increase the number of ports to 14, with options ranging from 1 to 200 Gbe Cu / SFP+ / QSFP ports. For processing historical data using the In-Memory database, the base version starts with 192 GB memory and can be expanded up to 6 TB. The ring buffer, crucial for recording network traffic across multiple links, may be dynamically expanded by up to 10 x 2.5" SATA / U.2. NVMe in the base version or up to 12 x 2.5" SATA/U.2. NVMe for the high-capacity version.

Allegro Packets
Network Multimeter

Allegro 1310 / 3310 / 5310 / 7310 Series Specifications

Feature	Allegro 1310 / 3310 / 5310 / 7310
Rack units	1
Size (W/H/D) in mm	Base Version: 437 x 43 x 597 HC (High-Capacity) Version: 437 x 43 x 747
Weight	20 — 30 kg
Packaging	Server box
Internal database memory	Default Memory Size: 192 GB Base Version: up to 1152 GB HC (High-Capacity) Version: up to 6144 GB
Built-in packet ring buffer storage	configurable with external HDD/SSDs (memory limited only by max. number of HDD/SSDs x largest size available)
HDD / SSD extension slots	Base Version: 10 x 2.5" SATA/U.2 slots HC (High-Capacity) Version: 12 x 2.5" SATA/U.2 slots
Capture ports	2 x SFP+ [1] 1 x WiFi 6e USB adapter 2 x USB3
Capture port extension options[2]	Base Version: 2 regular extension slots + 1 OCP slot HC (High-Capacity) Version: 3 regular extension slots
Management ports	1 x 1G/10GBase-T 1 x 1000Base-T IP KVM remote management 1 x WiFi 802.11n via USB adapter Option for 1 x 40/100G management via QSFP28

Performance	A1310(-HC)[3]	A3310(-HC)[3]	A5310(-HC)[3]	A7310(-HC)[3]
Max. capture rate (capture only)[4] depending on installed SSD	40 Gbit/s	80 Gbit/s	160 Gbit/s	240 Gbit/s
Average throughput (full decode)[4]	20 Gbit/s	40 Gbit/s	80 Gbit/s	120 Gbit/s
Average packets per second[4] (capture/full decode)	10/4 Mpps	15/7 Mpps	30/15 Mpps	60/30 Mpps

[1] SFP / SFP+ ports require Intel branded SFP modules
[2] Reference Port Extensions Datasheet for the latest options and specifications
[3] Order IDs with "-HC" are for the high-capacity version. The base version omits this, for example A1310.
[4] Real-world datacenter throughput scenario
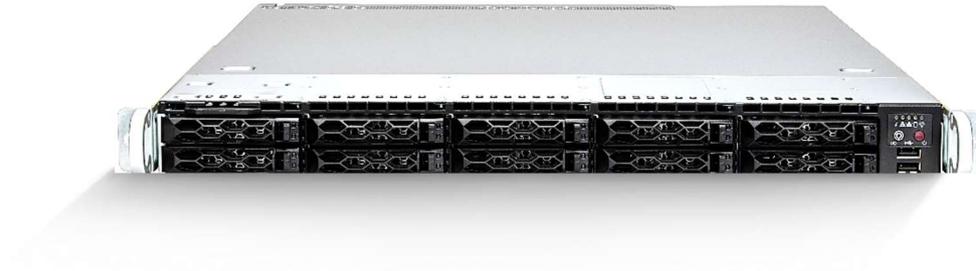
Max. parallel connections	4 million simultaneously open connections
Jumbo frames	at least 9,000 Bytes^2
Max. power consumption	Base Version: 800 W (100 – 127 Vac), 860 W (200 – 240 Vac) HC Version: 1000 W (100 – 127 Vac), 1200 W (200 – 240 Vac)
AC 100-240V (50 / 60 Hz) support	Yes
Redundant power supply	Yes
Rack kit	Included
Airflow	Front to rear
Operating temperature and humidity	+10 °C to +35 °C (+50 °F to +95 °F) 8% to 90% (non-condensing)
Non-operating temperature and humidity	-40 °C to +60 °C (-40 °F to +140 °F) 5% to 95% (non-condensing)
Warranty Support	1 year included, extendable as option

Memory Expansion Options

If you need to view more historical data, you can upgrade the In-Memory database of the Allegro Network Multimeter. The base version contains 192 GB of memory. This can be expanded up to 6,144 GB. The HC (High-Capacity) version is required for memory extensions 1,536 GB and higher.

Order ID	Product Description
Ax310-384GB	Memory extension 192 to 384 GB
Ax310-576GB	Memory extension 192 to 576 GB
Ax310-768GB	Memory extension 192 to 768 GB
Ax310-1152GB	Memory extension 192 to 1,152 GB
Ax310-1536GB	Memory extension 192 to 1,536 GB (requires HC version)
Ax310-2304GB	Memory extension 192 to 2,304 GB (requires HC version)
Ax310-3072GB	Memory extension 192 to 3,072 GB (requires HC version)
Ax310-6144GB	Memory extension 192 to 6,144 GB (requires HC version)

Options for Internal Storage Expansion

The internal storage acts as a packet ring buffer for the entire link or its selected traffic. This allows the extraction of historical packets. The HDD slots are open, i.e., your own HDDs, even of different capacities, can be installed.

Order ID	Product Description
Ax310-1TBHDD	1 TB SATA HDD, full packet capturing up to 700 Mbit/s
Ax310-8TBSSD	8 TB SATA SSD, full packet capturing up to 1 Gbit/s (up to 4 Gbit/s for ~150 seconds), limited warranty 2,800 TBW
Ax310-2TBSSD	2 TB U.2 SSD, full packet capturing up to 10 Gbit/s, limited warranty 3,600 TBW
Ax310-6.4TBSSD	6.4 TB U.2 SSD, full packet capturing up to 40 Gbit/s, limited warranty 35,000 TBW
Ax310-12.8TBSSD	12.8 TB U.2 SSD, full packet capturing up to 40 Gbit/s, limited warranty 70,000 TBW
Ax310-25.6TBSSD	25.6 TB U.2 SSD, full packet capturing up to 40 Gbit/s, limited warranty 140,000 TBW

Warranty Options

All warranty and service extensions include hardware warranty and all software updates. The first year is always included in the purchase price.

Order ID[5]	Product Description
Ax310-IGS2[6]	Discounted extension of initial guarantee and service by 2 years (3 years total from initial purchase)
Ax310-IGS4[6]	Discounted extension of initial guarantee and service by 4 years (5 years total from initial purchase)
Ax310-GS1	Guarantee and service extension for 1 year
Ax310-GS3	Guarantee and service extension for 3 years
Ax310-GS5	Guarantee and service extension for 5 years

[5] Order ID uses the specific device ID. For example, to extend the initial service agreement by 2 years for an Allegro 5310, the order ID would be A5310-IGS2.

[6] Only available within 30 days after initial purchase.