

Allegro Network Multimeter 1300 / 3300 / 5300

Datasheet



Analysis and Debugging Tool for Network Administrators

- ✓ High analysis and capture rates (10 / 40 / 100 / 200 GBit/s)
- ✓ Up to 128 TB SSD with up to 120 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 Centres, ISP Networks

The x300 Series, consisting of Allegro 1300, 3300 and 5300, is optimized for the analysis, monitoring, verification and troubleshooting of network connections from 1 G to 200 G. The Allegro x300 is designed for very high analysis and capture rates and storage capacity. It allows retroactive verification of up to 800,000 IP addresses and up to 256 million connections. This Allegro Network Multimeter series is ideal for use in large data centres, core networks and ISP infrastructures.

Real-time Visibility and Statistics for all Connections

The Allegro x300 appliances provide granular visibility and selective packet filtering across L2 to L7 in real-time and history mode. The web interface offers comprehensive overviews as well as detailed statistics for network quality, IPs, MACs, VLANs, Multicast, QoS, TCP, TLS, RTP, Profinet, VoIP and many more.

Traffic Recorder and Back-in-Time Playback

The Allegro x300 features back-in-time capability, that enables precise selection and extraction of recorded information. Such pre-filtered pcap data can be easily extracted with a simple click. In addition, selected data can be individually re-imported into the network, to recreate specific events or security incidents, e.g., with IDS / IPS systems.

Expandable Ethernet Ports, In-memory Database and Ring Buffer

The x300 Series has multiple extensions for additional connections and storage options. The dual QSFP28 option allows up to 100 GBit/s of real-time traffic to be checked in 100 GBit/s environments. Alternatively, the number of ports can be increased to 12, selectable from 1 / 2.5 / 5 / 10 / 25 / 40 / 100 or 200 GbE Cu / SFP+ / QSFP / QSFP56 ports. The memory size for processing historical data in the In-memory database is 64 GB in the base version and can be expanded up to 4 TB. The ring buffer, for recording network traffic on multiple links, may be dynamically expanded by up to 10 x 2.5" HDDs or U.2 SSDs.



Table 1

Allegro 1300 / 3300 / 5300 Series Specifications

Feature	Allegro 1300 / 3300 / 5300 (revision 1)
Rack units	1
Size (W/H/D) in mm	437 x 43 x 597
Weight	20 – 30 kg
Power supply	Redundant 500W AC power supply unit (order ID 180: 750W)
Airflow	Front-to-back
Packaging	Server box
Internal database memory	Base unit: 64 GB ECC Extension: up to 4 TB (2 TB and 4 TB requires order ID 180)
Management port	1 x 10GBase-T 1 x 1000Base-T IP KVM remote management
Optional disk expansion	10 x 2.5" SATA3, 2 x of the 10 x support U.2 SSDs extended backplane supports 10 x U.2 SSDs (order ID 180)
Monitor ports	Up to 3 expansion slots, per extension: <ul style="list-style-type: none"> · dual 40 G / 100 G (QSFP28) · dual 200 G (QSFP56) · dual 25 G (SFP28) · dual/quad 10 G (SFP+) · dual 1/2.5/5/10GBase-T (Cu) · quad 1000Base-T (Cu) · quad PoE 802.3 at 25.5W 1000Base-T (Cu)

Performance (full analytics / capture only)	Allegro 1300	Allegro 3300	Allegro 5300
Max. throughput ¹	20 / 40 GBit/s	50 / 100 GBit/s	100 / 150 GBit/s
Average throughput ²	10 / 20 GBit/s	25 / 50 GBit/s	50 / 100 GBit/s
Average packets per second ²	1.5 / 4 million pps	4 / 12 million pps	8 / 25 million pps
Max. Capture-to-Disk performance	Up to 40 GBit/s with 2 x U.2 SSDs	Up to 80 GBit/s from 4 x U.2 SSDs	Up to 120 GBit/s from 6 x U.2 SSDs



Max. parallel connections	4 million simultaneously open connections
In-memory DB storage ³	Base version: 64 GB: Storage of up to 50,000 active IP addresses and the last 16 million connections. Memory upgrades increase the number of IP addresses or connections.
Jumbo frames	9,000 Bytes
Hardware warranty	1 or 3 years, longer as option
1U rack kit	Included
Operating temperature	+10 °C to +35 °C
Non-operating temperature	-40 °C to +60 °C
Certifications	FCC, CE

Table 2 Network Extension Options

The x300 Series offers several extensions for additional connections. The dual QSFP28 option allows up to 100 GBit/s real-time traffic to be checked in 100 G environments. Alternatively, the number of ports can be increased up to 12, selectable from 1 / 2.5 / 5 / 10 / 25 / 40 / 100 or 200 GbE Cu / SFP+ / QSFP ports.

Order ID	Product Description
211	SFP+ 2-port extension (1/10 G)
212	SFP+ 4-port extension (1/10 G)
213	SFP+ 2-port extension with nanosecond timestamp support
214	SFP+ 2-port extension with GPS based nanosecond timestamp support
215	10GBase-T 2-port Cu extension (1/2.5/5/10 G)
216	1000Base-T 4-port Cu extension (100 M/1 G)
217	SFP28 2-port extension (1/10/25 G)
218	QSFP 2-port extension (40 G)
219	1000Base-T 4-port BYPASS Cu extension
220	10 G 2-port BYPASS short range extension
221	QSFP28 2-port extension (40 G/100 G)
222	1000Base-T PoE+ Cu 4-port extension
224	QSFP56 2-port extension (200 G)

Table 3 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 already contains 64 GB of memory. This can be expanded up to 4,096 GB.

Order ID	Product Description
340	Memory extension 64 to 128 GB
341	Memory extension 64 to 256 GB
342	Memory extension 64 to 512 GB
343	Memory extension 64 to 1,024 GB
344	Memory extension 64 to 2,048 GB (requires option 180)
345	Memory extension 64 to 4,096 GB (requires option 180)

Table 4 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
420	1 TB HDD, full packet capturing up to 700 MBit/s, up to 10 exchangeable HDD slots
422	2 TB U.2 SSD, full packet capturing up to 10 GBit/s, limited warranty 3,600 TBW
423	6.4 TB U.2 SSD, full packet capturing up to 20 GBit/s, limited warranty 37,300 TBW
424	12.8 TB U.2 SSD, full packet capturing up to 20 GBit/s, limited warranty 74,700 TBW

¹ Under ideal test conditions

² Real-world datacenter throughput scenario

³ Real-world datacenter traffic