Allegro Packets
Network Multimeter

Allegro Network Multimeter 1300 / 3300 / 5300

Datasheet

Analysis and Debugging Tool for Network Administrators

- High analysis and capture rates (10 / 40 / 100 GBit / s)
- Up to 25.6 TB SSD with up to 40 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 Network

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 100 G. The systems are designed for very high capture recording, analysis and storage rates and allow retroactive verification of up to 800,000 IP adresses and up to 256 million connections. The Allegro Network Multimeter is ideal for use in large data centers, core networks and ISP infrastructures.

Real-time Web Statistics for all Connections

The appliances of the x300 series provide statistics and selective packet filtering over L2 to L7 in real-time and history mode. The web interface offers comprehensive overviews as well as detailed statistics (e.g. IP and MAC addresses, VLANs, QoS, L7 protocols and video / VoIP).

Traffic Recorder and Back-in-Time Playback

The Allegro x300 series is equipped with a back-in-time function and enables precise selection of the recorded information. The data can be extracted as pcaps as a browser download with a simple click. In addition, selected data can be individually reimported 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 G environments. Alternatively, the number of ports can be increased to 12, selectable from 1 / 2.5 / 5 / 10 / 25 or 40 GbE Cu / SFP+ / QSFP 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 the traffic on a link or the selected data traffic enables the extraction of historical packets. The ring buffer can be dynamically expanded up to 10 x 2.5“ HDDs and 2 x U.2 SSDs.

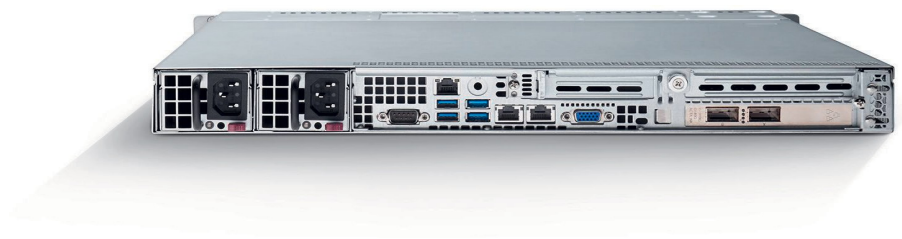

Table 1 Allegro 1300 / 3300 / 5300 Series Specifications

Feature	Allegro 1300 / 3300 / 5300
Rack units	1
Size (W / H / D) in mm	437 x 43 x 597
Weight	20 – 30 kg (depending on the number of HDDs and network cards installed)
Power supply	Redundant 500 W AC power supply unit
Airflow	Front-to-back
Packaging	Server box
Internal database memory	Base unit: 64 GB ECC Extension: up to 4 TB
Management port	1 x 10GBase-T 1 x 1000Base-T IP KVM remote management
Optional disk expansion	10 open 2,5“ HDD slots for SATA3 server disks, with up to 6 GBit/s connections per hard disk, 2 slots support U.2 NVMe SSDs
Monitor ports	Up to 3 expansion slots, per extension: · dual 100 G (QSFP28) · dual 40 G (QSFP) · dual 25 G (SFP28) · dual / quad 10 G (SFP+) · dual 1 / 2.5 / 5 / 10GBase-T (Cu) · quad 1000Base-T (Cu) · quad PoE 802.3at 25.5W 1000Base-T (Cu)

Feature	Allegro 1300	Allegro 3300	Allegro 5300
Max throughput1	20 GBit/s	50 GBit/s	100 GBit/s
Average throughput2	10 GBit/s	25 GBit/s	50 GBit/s
Max Capture-to-disk performance	Up to 20 GBit/s	Up to 40 GBit/s	Up to 40 GBit/s
Average packets per second2	1.5 million pps	4 million pps	8 million pps

Max parallel connections	4 million simultaneously open connections
In-memory DB storage3	Base version: 64GB: Storage of up to 50,000 active IP adresses and the last 16 million connections. Memory upgrades increase the number of IP adresses or connections.
Jumbo frames	9,000 Bytes
Hardware warranty	1 or 3 years, more 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 or 40 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

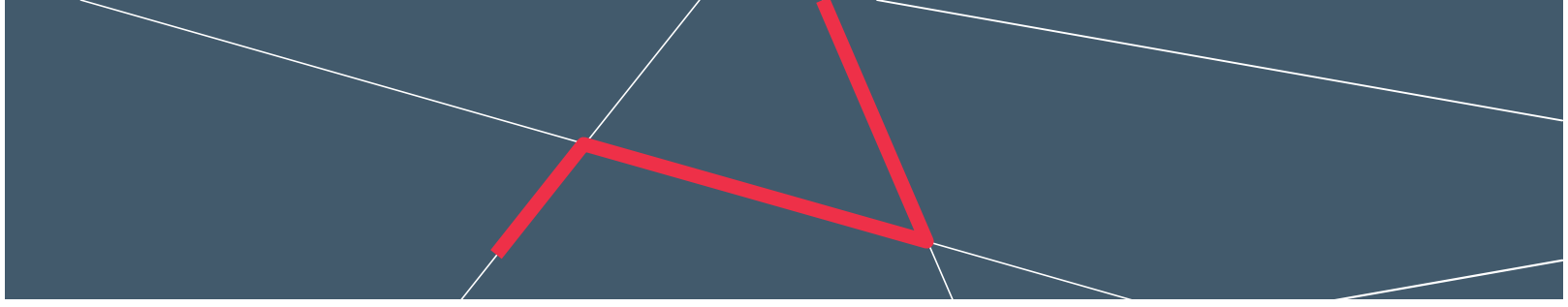

Table 3 Memory Expansion Options

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 64GB to 128GB
341	Memory extension 64GB to 256 GB
342	Memory extension 64GB to 512 GB
343	Memory extension 64GB to 1,024GB
344	Memory extension 64 GB to 2,048 GB
345	Memory extension 64 GB to 4,096 GB

Table4 Options for Internal Storage Expansion

The internal storage acts as a packet ring buffer for the entire link or for selected traffic. This allows the extraction of previous 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
421	512 GB U.2 SSD, full packet capturing up to 10 GBit/s, limited warranty 400 TBW
422	2 TB U.2 SSD, full packet capturing up to 10 GBit/s, limited warranty 1,200 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

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