Allegro Network Multimeter 3000 Series

Hardware datasheet

Analysis and debugging tool for network administrators

- Analyze and correlate all metadata from L2 to L7
- Selective and retroactive pcap extraction
- Real time search and filtering from L2 to L7
- Active email alert
- Easy installation on a mirror port, tap or as a network bridge
- Simple licensing
- Development Made in Germany
- Direct support from Germany

Designed for core networks with massive data

The Allegro 3000 series is designed for monitoring and troubleshooting for 1 up to 100 Gigabit links in a single box. It allows you to monitor the last 80,000 seen IP addresses and up to 32 million connections for retroactive debugging and investigation.

Real time and historic web view

The Allegro 3000 series delivers network statistics and selective packet captures from Layer 2 to 7 for real time as well as past time intervals for several days. The easy-to-use web interface provides a drill down from global overviews to detailed statistics including IPs, MACs, L7 protocols, TCP retransmissions.

Immediate results

The Allegro 3000 series offers immediate statistics at the installation point. Just place the Allegro in line, on a tap, or use it on a mirror or span port to see what happens at this point.

Powerful and portable

The Allegro 3000 is a portable solution (weighing less than 3kg). The Allegro 3200 is a 1U rack solution with additional extensions slots. The additional internal packet ring buffer allows you to extract captures from past traffic with a simple click as a browser download.

Extensible ethernet ports

The Allegro 3000 series devices have several extension options for additional connectivity. The dual QSFP28 option allows you to monitor up to 40 Gbit/s real time traffic in a 100 G environment. As an alternative, the number of 1, 2.5, 5 or 10 GbE copper / SFP+ ports can be increased by up to 4 additional ports. Two different high precision cards (with and without an internal GPS receiver) allow you to capture network traffic with nanosecond precision and support SFP+ from 100FX to 10 GBit/s.

Quality Made in Germany

The Allegro 3000 series is developed in Leipzig, Germany. Purchasing the Allegro 3000 series includes direct support from our qualified team based in Germany.

Table 1 Allegro 3000 Series base unit specifications

Feature	Allegro 3000	Allegro 3200
Order ID	120	121
Rack units	1 (half width)	1 (full width)
Size (H/L/W) in mm	43 x 254 x 226	43 x 249 x 439
Weight	2 kg	4 kg
Extension options	1 (network or disk extension)	1 for network extension 1 for disk extension
Power supply	120 W, external	200 W, internal
Possible disk extension	1 TB	1 TB, 4 TB, 10 TB
Airflow	Front-to-back or Back-to-front[1]	Front-to-back
Packaging	Portable hard case	Server box
Internal database memory	Base unit: 64 GB ECC, extension: 128 GB ECC	
Management port	1 x 1000BaseT out of band 1 x WiFi 802.11n via USB adapter 1 x 1000BaseT IP KVM remote management	
Monitor ports	Base unit: 5 x 1000BaseT, 2 x SFP+[2] Extension: up to 9 x 1000BaseT, up to 6 x SFP+, up to 2 x QSFP28	
Maximum throughput[3]	40 GBit/s	
Average throughput[4]	20 GBit/s	
Average packets per second[4]	4 million pps	
Max parallel connections	1 million concurrent open connections	
In-Memory DB storage[5]	64 GB stores the last 40,000 active IPs and the last 16 million connections. Monitors approx. 6,000 endpoints for 4 days. 128 GB allows for the storing of twice the amount of active IPs, connections and endpoints or twice the duration.	
Jumbo frames	9,000 bytes	
Hardware guarantee	Default 1 year, more as option	
1U rack kit	Included	
Operating temperature	10° C to 40° C (50° F to 104° F)	
Non-operating temperature	-40° C to 70° C (-40° F to 158° F)	
Operating relative humidity	8 % to 90 % (non-condensing)	
Non-operating relative humidity	5 % to 95 % (non-condensing)	
Certifications	Electromagnetic Emissions: FCC Class A, EN 55022 Class A, EN 61000-3-2/-3- 3, CISPR 22 Class A Electromagnetic Immunity: EN 55024/CISPR 24, (EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11), Safety: CSA/EN/IEC/UL 60950-1 Compliant, UL or CSA Listed (USA and Canada), CE Marking (Europe), RoHS Compliant	

Table 2 Network extension options

Please be aware that the Allegro 3000 only has a shared slot for either one network extension or one internal storage extension (order ID 403 to 405). The Allegro 3200 has two slots, one for network extension and one for internal storage extension. All SFP+ and QSFP28 ports require a SFP+ / QSFP28 module, see Table 5 for available modules.

Order ID	Product description
220	SFP+ 2-port extension card
221	SFP+ 4-port extension card
222	QSFP28 2-port extension card for 40 G / 100 G interfaces
223	SFP+ 2-port extension card with nanosecond timestamp support. Relative accuracy < 20 ns. Synchronization via NTP or PTP, absolute accuracy depends on external time server
224	SFP+ 2-port extension card with additional GPS SMA antenna connector for nanosecond timestamp support. Relative accuracy < 20 ns. Synchronization via GPS antenna, NTP or PTP, absolute accuracy via GPS < 100 ns depending on antenna conditions
225	10 G-BaseT copper 2-port extension, also supports 1 GbE, 2.5 GbE and 5 GbE
226	1000-BaseT copper 4-port extension

Table 3 Memory extension options

Upgrade this to store more historical data in the in-memory database. 64 GB are always included in the base version.

Order ID	Product description
320	Memory extension 64 GB to 128 GB

Table 4 Internal storage extension options

Internal storage acts as a packet ring buffer for the full link or for selected traffic. This allows for historic packet capture extraction. It is not included in the base version. A USB 3 disk can be used as storage if the extension slot is blocked by a network extension for the Allegro 3000. Order ID 401 and 402 do not block the extension slot and can be installed in addition to a NIC.

Order ID	Product description
401	Internal 512 GB SSD, up to 400 TB written data, up to 10 GBit/s full packet capturing[6]
402	Internal 2 TB SSD, up to 1200 TB written data, up to 10 GBit/s full packet capturing[6]
403	Internal 1 TB HDD, up to 700 MBit/s full packet capturing
404	Internal 4 TB HDD, up to 1.2 GBit/s full packet capturing[7]
405	Internal 10 TB HDD, up to 1.2 GBit/s full packet capturing[7]

Table 5 SFP module options

Order ID	Product description
700	Dual Speed 1 G / 10 G SFP+ short range multimode, LC
701	Dual Speed 1 G / 10 G SFP+ long range singlemode, LC
702	Dual Speed 1 G / 10 G BaseT Copper SFP+ RJ45 Module
710	40 G QSFP SR, MPO connector
711	40 G QSFP LR, LC connector
720	100 G QSFP28 SR, MPO connector
721	100 G QSFP28 LR, LC connector
730	100BaseT / 1000BaseT SFP module[8]
731	100FX SFP module[8]

Table 6 Product bundles

Order ID	Product description
820	Allegro 3000 bundle with QSFP28 port extension, 2 x QSFP SR MPO modules and 2 x SR SFP modules (ID 120, 222, 2 x 700, 2 x 710)
821	Allegro 3200 bundle with QSFP28 port extension, 4 TB internal disk, 2 x QSFP SR MPO modules and 2 x SR SFP modules (ID 121, 222, 404, 2 x 700, 2 x 710)

[1] Rackmount kit can be installed on both ends, depending on airflow requirements
[2] Requires activation license
[3] Under ideal testing conditions
[4] Real-world datacenter throughput scenario
[5] Real-world datacenter traffic
[6] Can be installed in addition to a NIC extension in all 3000 products
[7] Only for Allegro 3200, not available for Allegro 3000 due to internal space limitations
[8] Only for nanosecond capture card, order ID 213 and 214