Allegro Network Multimeter 1000 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 ISPs, corporate, campus and datacenter networks

The Allegro 1000 series fits perfectly into all environments with Gigabit and 10 Gigabit cabling. 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 1000 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 1000 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 1000 is a portable solution (weighing less than 3 kg). The Allegro 1200 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 1000 series devices have several extension options for additional connectivity. 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 1000 series is developed in Leipzig, Germany. Purchasing the Allegro 1000 series includes direct support from our qualified team based in Germany.

Table 1 Allegro 1000 Series base unit specifications

Feature	Allegro 1000	Allegro 1200
Order ID	110	111
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	84 W, external	200 W, internal
Possible disk extension	Up to 2 TB	Up to 10 TB
Airflow	Front-to-back or Back-to-front[1]	Front-to-back
Packaging	Portable soft shell case	Server box

Internal database memory	Base unit: 16 GB ECC, extension: 64 GB ECC, 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+ Extension: up to 9 x 1000BaseT, up to 6 x SFP+
Maximum throughput[2]	20 GBit/s
Average throughput[3]	10 GBit/s
Average packets per second[3]	1.2 million pps
Max parallel connections	1 million concurrent open connections
In-Memory DB storage[4]	16 GB stores the last 10,000 active IPs and the last 4 million connections. Monitors approx. 1,500 endpoints for 4 days. 64 GB/128 GB allows for the storing of 4 / 8 times more active IPs, connections and endpoints or 4 / 8 times more days.
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 1000 only has a shared slot for either one network extension or one internal storage extension (order ID 403 to 405). The Allegro 1200 has two slots, one for network extension and one for internal storage extension. All SFP+ ports require a SFP+ module, see Table 5 for available modules.

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	10 G-BaseT copper 2-port extension (1 / 2.5 / 5 / 10 G)
216	1000-BaseT copper 4-port extension (100 M / 1 G)
217	SFP28 2-port extension (1 / 10 / 25 G)
218	QSFP 2-port extension (40 G)
219	1000-BaseT 4-port BYPASS copper extension
220	10 G 2-port BYPASS short range extension
221	QSFP28 2-port extension (40 G / 100 G)

Table 3 Memory extension options

Upgrade this to store more historical data in the in-memory database. 16 GB are always included in the base version.

Order ID	Product description
310	Memory extension 16 GB to 64 GB
311	Memory extension 16 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 1000. 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 2 TB SSD[5], up to 10 GBit/s full packet capturing, limited warranty 400 TBW
402	Internal 2 TB SSD[5], up to 10 GBit/s full packet capturing, limited warranty 1200 TBW
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[6]
405	Internal 10 TB HDD, up to 1.2 GBit/s full packet capturing[6]

Table 5 SFP module options

Order ID	Product description
700	Dual Speed 1 G / 10 G SFP+ short range multimode, LC up to 300 m via Multimode OM3 @ 2000 MHz fiber (MMF)
701	Dual Speed 1 G / 10 G SFP long range singlemode, LC up to 10 km via Singlemode OS2 G.652 fiber (SMF)
702	Dual Speed 1 G / 10 G BaseT Copper SFP+ RJ45 Module
710	40 G QSFP SR, MPO connector up to 100 m via Multimode OM3 @ 2000 MHz fiber (MMF)
711	40 G QSFP LR, LC connector up to 10 km via Singlemode OS2 G.652 fiber (SMF)
720	100 G QSFP28 SR, MPO connector up to 100 m via Multimode OM4 @ 4700 MHz fiber (MMF)
721	100 G QSFP28 LR, LC connector up to 10 km via Singlemode OS2 G.652 fiber (SMF)
730	100BaseT / 1000BaseT SFP modules (only for nanosecond timestamp capture)[7]
731	100FX SFP modules (only for nanosecond timestamp capture)[7]
740	25 G SFP28 SR up to 100 m via Multimode OM4
741	25 G SFP28 LR up to 10 km via Singlemode OS2 G.652 fiber (SMF)

Table 6 Product bundles

Order ID	Product description
810	Allegro Network Multimeter 1000 bundle with internal 1 TB disk and 2 x SR SFP modules
811	Allegro Network Multimeter 1200 bundle with 4 x SFP+ extension, internal 4 TB disk and 6 x SR SFP modules
812	Allegro Network Multimeter 1000 bundle with internal 1 TB disk, 2 x SR SFP modules and 64 GB memory extension
813	Allegro Network Multimeter 1200 bundle with 4 x SFP+ extension, internal 4 TB disk, 6 x SR SFP modules and 64 GB memory extension

[1] Rackmount kit can be installed on both ends, depending on airflow requirements
[2] Under ideal testing conditions
[3] Real-world datacenter throughput scenario
[4] Real-world datacenter traffic
[5] Can be installed in addition to a NIC extension in all 1000 products
[6] Only for Allegro 1200, not available for Allegro 1000 due to internal space limitations
[7] Only for nanosecond capture card, order ID 213 and 214