

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 UK & 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 extension 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 10GbE 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 as well as the UK.



Table 1

Allegro 1000 Series Base Unit Specifications

| Feature | Allegro 1000 | Allegro 1200 |
|---|---|---|
| Order ID | 110 | 111 |
| Rack units | 1 (halfwidth) | 1 (full width) |
| Size (L/H/W) in mm | 264 x 43 x 226 | 439 x 43 x 249 |
| Weight | 2 kg | 4 kg |
| Extension options | 1 (network or disk extension) | 1 for network extension 1 for disk extension |
| Power supply | 150W, external ⁸ | 200W, internal |
| Possible disk extension | Up to 2 TB | Up to 10TB |
| Airflow | Front-to-back or Back-to-front ¹ | Front-to-back |
| Packaging | Portable soft shell case | Server cardboard |
| Internal database memory | Base unit: 16GB ECC, extension: 64GB ECC, 128GB ECC, 256GB ECC ⁸ | |
| Management port | 1 x 1000Base-T out of band 1 x WiFi 802.11n via USB adapter 1 x 1000Base-T IP KVM remote management | |
| Monitor ports | Base unit: 3 x 1000Base-T, 2 x 10GBase-T ⁸ , 2 x SFP+ (Intel module) ⁹ Extension: up to 9 x 1000Base-T, 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 | 16GB stores the last 10,000 active IPs and the last 4 million connections. 64GB / 128GB / 256GB increase the memory capacity or the duration of the active IPs and connections by 4, 8 or 16 times. | |
| Jumbo frames | 9,000 bytes | |
| Hardware warranty | 1 or 3 years, 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 | CE FCC RoHS | |

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 | 10GBase-T copper 2-port extension (1 / 2.5 / 5 / 10 G) |
| 216 | 1000Base-T 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 | 1000Base-T 4-port BYPASS copper extension |
| 220 | 10G 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 Extension Options

Upgrade this to store more historical data in the in-memory database. 16GB 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 |
| 312 | Memory extension 16 GB to 256 GB ⁸ |

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 SSD5, up to 10 GBit/s full packet capturing, limited warranty 400 TBW |
| 402 | Internal 2 TB SSD5, 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 | 1 G / 10 G SFP+ short range multimode, LC up to 300 m via Multimode OM3 @ 2000 MHz fiber (MMF) |
| 701 | 1 G / 10 G SFP long range singlemode, LC up to 10 km via Singlemode OS2 G.652 fiber (SMF) |
| 702 | 1 G / 10 G BaseT Copper SFP+ RJ45 Module |
| 703 | 10 G SFP+ BIDI 10 km, Tx1270/Rx1330nm, singlemode, LC, Type U |
| 704 | 10 G SFP+ BIDI 10 km, Tx1330/Rx1270nm, singlemode, LC, Type D |
| 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

⁸ Beginning with 2019

⁹ Basis SFP+ ports require Intel branded SFP module

