MEINBERG
The Synchronization Experts.

SyncFire 1200

Powerful and Reliable NTP Time Server

The Meinberg SyncFire 1200 NTP Time Server appliance offers the flexibility and reliability of the Meinberg LANTIME M-Series Product Family in a new package that is optimized for Data Center deployments and can synchronize hundreds of thousands of NTP and SNTP clients.

The redundant, hot-pluggable power supplies and system fans ensure a 24/7 operation, 365 days a year with no or minimal downtime for repair in case of a hardware failure. The ability to add a second GPS or combined GPS/GLONASS/Galileo/BeiDou receiver for a redundant reference time source plus the capability to form redundant network links by assigning multiple LAN interfaces to a high availability bonding group, provide an unmatched level of reliability.

The new Meinberg SyncFire 1200 comes with an AMD® EPYC® 7262 (8-Core, 3.2 GHz) CPU.
The standard configuration offers four Gigabit interfaces, the number of physical interfaces can be increased to a maximum of twelve network ports.

Depending on the number of physical network interfaces, a SyncFire 1200 can handle hundreds of thousands NTP requests per second. This makes the Meinberg SyncFire 1200 one of the world‘s strongest and most reliable NTP appliances on the market and the perfect fit for high performance NTP requirements like synchronization of Femtocell Access Points or other CPEs, VOD Set Top Boxes or when an Internet NTP server has to be provided for a large number of SNTP or NTP capable end devices.

Key Features

- Synchronization of NTP and SNTP compatible clients
- AMD® EPYC® 7262 CPU (3.2 GHz, 8 cores, 16 threads)
- 3x PCIe Slots for up to two Reference Clocks and/or additional Network Interfaces
- Network Interface Options (“On board”) include:
  4x 1GBit/s RJ45 Ports,
  2x 10GE SFP+ Slots or
  2x 10/25GE SFP+ Slots
- Supports Hundreds of Thousands NTP Requests per Second
- Multi-Threading Support developed by Meinberg

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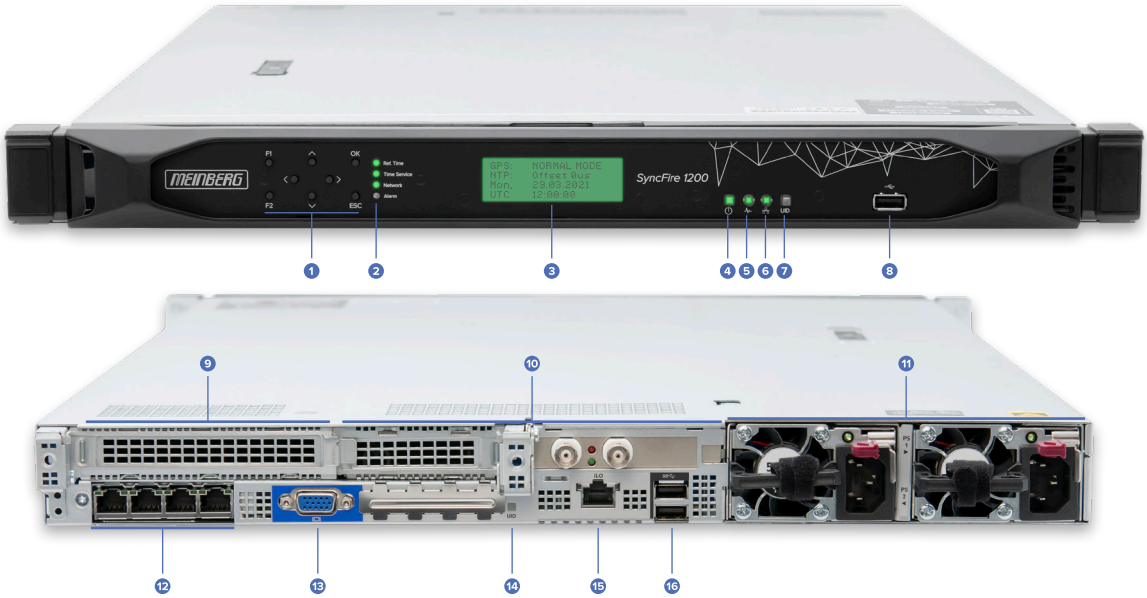
Characteristics

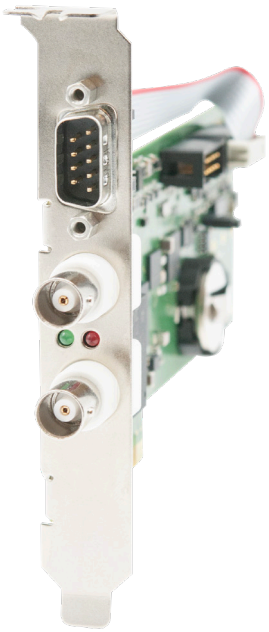
SYSTEM CPU	AMD® EPYC® 7262 (8-Core, 3.2 GHz, 155 W)
MEMORY	16 GB RDIMM SR 2933 MT/s
OPERATING SYSTEM	LTOS V7.02 or newer
POWER SUPPLY	Redundant power supply (hot-plug power supply unit) ; Nominal Voltage Range: 100-240 V AC Frequency Range: 50-60 Hz Maximum Output: 500 W Nominal Input Current: 2.3 A (100 V AC) / 5.6 A (240 V AC)
NTP	NTP v2 (RFC 1119), NTP v3 (RFC 1305), NTP v4 (RFC 5905) SNTP v3 (RFC 1769), SNTP v4 (RFC 4330) MD5 / SHA-1 Authentication and Autokey Key Management
NTP REQUESTS/SECOND	Multi-Core NTP: hundreds of thousands req/sec Multi-Threading Support developed by Meinberg
SNMP	SNMPv1 (RFC 1157), SNMPv2c (RFC 1901-1908), SNMP v3 (RFC 3411-3418)
INTERNET PROTOCOLS	IPv4, IPv6
AUTO-CONFIGURATION	IPv4: Dynamic Host Configuration Protocol - DHCP (RFC 2131) IPv6: Dynamic Host Configuration Protocol - DHCPv6 (RFC 3315) and Autoconfiguration Networking - AUTOCONF (RFC 2462)
LAYER 4 PROTOCOLS	TCP, UDP
LAYER 7 PROTOCOLS	TELNET, FTP, SSH (incl. SFTP, SCP), HTTP, HTTPS, SYSLOG, SNMP



1 Eight push buttons for basic configuration
2 CPU Status LEDs for Reference Time, Time Service, Network, Alarm
3 LC-Display, 4 x 20 characters
4 Power On/Standby button and system power LED
5 Health LED
6 NIC Status LED
7 UID Button and LED
8 USB 3.0 port
9 PCIe 3.0 Expansion Slot (Full-height, Full-length)
10 2x PCIe 3.0 Expansion Slots (Low Profile)
11 2x Power Supply, 500 W, 100-240 V AC
12 4-port 1 Gb Ethernet Adapter (RJ45); options available
13 VGA port
14 UID LED
15 Management Port (RJ45)
16 2x USB 3.0 ports

Configuration Options

ETHERNET ADAPTERS	4-port 1 Gb Ethernet Adapter (RJ45) 2-port 10 Gb Ethernet Adapter (RJ45/SFP) 2-port 10/25 Gb Ethernet Adapter (SFP)
PCI EXPRESS CLOCKS	GPS180PEX - Low Profile, GPS Clock GNS181PEX - Low Profile, Combined GPS / GLONASS / Galileo / BeiDou Clock



	GPS180PEX	GNS181PEX
RECEIVER TYPE	Meinberg GPS, 12-Channels	L1 Multi-GNSS (combined GPS / GLONASS / Galileo / BeiDou), 72-Channels
SIGNAL TYPE	IF (Meinberg Antenna)	L1/E1/B1 band
CONNECTORS	BNC (for Antenna) BNC (for Modulated Timecode) D-sub DE-9 (RS-232 Single Serial Interface)	SMA (for Antenna) BNC (for Modulated Timecode) D-sub DE-9 (RS-232 Single Serial Interface)
ANTENNA TYPE	Remote powered GPS Antenna / Converter Unit	40 dB L1 Multi-GNSS Antenna
BOARD TYPE	Low Profile, 68,90 x 150 mm (2.71 x 5.91 in)	
ACCURACY OF PULSE OUTPUTS	Depending on Oscillator Option: < ±100 ns (TCXO, OCXO LQ) < ±50 ns (OCXO MQ, OCXO HQ) Standard: TCXO	
OSCILLATOR SPECIFICATIONS	Detailed Oscillator List →	
SIGNAL OUTPUT	10 MHz, TTL	
MODULATED TIMECODE OUTPUT	IRIG AM sine wave signal: $3V_{PP}$ (MARK), $1V_{PP}$ (SPACE) into 50 Ω	
UNMODULATED TIMECODE OUTPUT	DCLS, TTL into 50 Ω (active high or active low)	
FURTHER SPECIFICATIONS	GPS180PEX →	GNS181PEX →

Mechanical Data

FORM FACTOR	1U, 19” Rack-mount
DIMENSIONS (H X W X D)	4,29 x 43,46 x 61,49 cm (1.69 x 17.11 x 24.21 in)
WEIGHT	Approx. 10 to 15,6 kg (22.05 to 35.27 lb) depending on configuration

Environmental Requirements

TEMPERATURE RANGE	Operating: Storage:	10 to 35 °C (50 to 95 °F) -30 to 60 °C (-22 to 140 °F)
MAXIMUM RATE OF CHANGE	20 °C/hr (36 °F/hr)	
RELATIVE HUMIDITY	Operating: Non-operating:	8 to 90 % (non-condensing) at 28 °C (82.4 °F) 5 to 95 % (non-condensing) at 38.7 °C (101.7 °F)
OPERATING ALTITUDE	Up to 3050 m (10,000 ft) above sea level	