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SyncFire 1500: Ultra-High-Performance NTP Time Server

The SyncFire 1500 offers top-of-the-line NTP server performance with no compromises. Constructed to order with an integrated GPS or multi-GNSS (GNS) receiver or a PTP slave specially engineered for optimum synchronization performance, the SyncFire 1500 is designed for - and excels in - hyperscale environments which rely on a large number of devices having a single common time reference.

Key Features

- Available with a selection of sync input cards for GPS-only synchronization, multi-GNSS synchronization, or PTP slave support for synchronization with a PTP master
GPS: Satellite receiver for the Global Positioning System
GNS: Combined GPS/GLONASS/Galileo/BeiDou satellite receiver, can also be used for mobile applications
PTP: 100/1000 Mbit Ethernet network interface card, PCI Express card, half height / IEEE1588-2002, IEEE1588-2008 and IEEE1588-2019 compliant
- Synchronization of NTP and SNTP compatible clients
- Web User Interface (WebUI) for configuration and status monitoring
- Supported networking protocols: IPv4, IPv6, HTTPS, HTTP, SSH, TELNET, SCP, SFTP, FTP, SYSLOG, SNMP
- Alert-Notification system of status change by Email, WinMail, SNMP or an external connected display
- Full support for SNMP v1, v2c und v3 with dedicated SNMP daemon for configuring/status monitoring of system using SNMP traps
- An ultra-high-end Stratum 1 NTP server designed for hyperscale data center deployments involving large numbers of NTP clients
- 1U chassis, specially constructed for installation in a 19" rack
- Up to twelve independent ethernet interfaces - 1000BASE-T, RJ-45
- Support for 1, 10, 25, and 40 Gbit Ethernet
- Capable of processing up to 825,000 NTP requests per second thanks to Multi-Threading Support developed by Meinberg

Description

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Characteristics

Operating System	Custom LANTIME OS based on Linux 4.x LTS kernel LTOS V7.08.002 or newer
Receiver Type	12-channel GPS C/A code receiver ("GPS" type receiver) or Combination GPS L1 / Galileo E1 / GLONASS L1OF / BeiDou B1I receiver ("GNS" type receiver) or PTP slave NIC based on Oregano Systems syn1588 technology
Status Indicators	Four bicolor LEDs indicating: <ul style="list-style-type: none"> - Reference time status - Time service status - Network link status - Alarm states
Type of Antenna	<p>Receiver Type "GPS": [1]Meinberg GPSANTv2 antenna, supports transmission routes of up to 300 m using standard RG58 cable, up to 700 m with standard RG213 cable, and up to 1100 m with standard Ultraflex H2010 cable</p> <p>Receiver Type "GNS": [2]GNMANTv2: Dual-Band Multi-Frequency Antenna for GPS, Galileo, GLONASS and BeiDou reception</p>
Display	LCD panel, 4 x 20 characters
Control Elements	Eight push buttons to set up basic network parameters and to change receiver settings
Network Interface	<p>Standard: 4-port Gigabit Ethernet (RJ45)</p> <p>Available Options: Additional network card with 4x Gigabit Ethernet (RJ45) ports or 4x 1/10 Gbit/s Ethernet (SFP+) ports or 2x 1/10/25 Gbit/s Ethernet (SFP28) ports or 2x 10/40 Gbit/s Ethernet (QSFP+) ports</p>
Universal Serial Bus (USB) Ports	<p>2x USB 3.0 interfaces (1x front, 1x rear) These USB interfaces can be used for:</p> <ul style="list-style-type: none"> * connecting an input device (e.g., keyboard) * backing up the configuration * backing up log files * importing and exporting cryptographic certificates * locking the function keys on the display

CPU	Intel Xeon E2276G Hexa-Core CPU 4.90 GHz, 6 cores, 12 threads, 12 MB cache, 80 W TDP
RAM	16 GB DDR4 3200 MT/s ECC
Internes Speichermedium	SSD, 120 GB
Network Protocols OSI Layer 4 (Transport Layer)	TCP, UDP
Network Protocols OSI Layer 7 (Application Layer)	Telnet, FTP, SSH (including SFTP, SCP), HTTP, HTTPS, syslog, SNMP
Internet Protocol (IP)	IPv4, IPv6
Network Autoconfiguration Support	IPv4: Dynamic Host Configuration Protocol - DHCP (RFC 2131) IPv6: Dynamic Host Configuration Protocol - DHCPv6 (RFC 3315) and Autoconfiguration Networking - AUTOCONF (RFC 2462)
Network Time Protocol (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
Time Protocol (TIME)	Time Protocol (RFC 868)
IEC 61850	Synchronization of IEC 61850-compliant devices using SNTP
Hypertext Transfer Protocol (HTTP)	HTTP/HTTPS (RFC 2616)
Secure Shell (SSH)	SSH v1.3, SSH v1.5, SSH v2 (OpenSSH)
Telnet	Telnet (RFC 854-RFC 861)
Simple Network Management Protocol (SNMP)	SNMPv1 (RFC 1157), SNMPv2c (RFC 1901-1908), SNMP v3 (RFC 3411-3418)
Power Supply Unit	Two hot-pluggable power supply units for redundant power supply Connector Type: IEC 60320 C13 female connector for C14 plug Nominal Voltage Range: 100 - 240 V AC Frequency Range: 50 - 60 Hz Maximum Output: 400 W Nominal Input Current: 6.3 A (240 V AC)
Physical Dimensions	439 mm x 42 mm x 602 mm (17.28 in x 1.54 in x 23.7 in) [W x H x D]
Supported Temperature	Operation: 0 °C to 45 °C (32 °F to 113 °F) Storage: -40 °C to 70 °C (-40 °F to 158 °F)

Supported Humidity	Operation: Max. 90 % at 40 °C (104 °F), non-condensing Storage: Max. 95 % at 50 °C (122 °F), non-condensing
Contents of Shipment	<p>Models with a GPS sync input card include a Meinberg GPS IF antenna/downconverter for outdoor installation, a mounting kit containing all the accessories required to mount the antenna on a pole or wall, and a 20 m (65.6 ft) RG58 coaxial cable with pre-fitted connectors as standard.</p> <p>Models with a GNS sync input card include a multi-GNSS antenna for outdoor installation, a mounting kit containing all the accessories required to mount the antenna on a pole or wall, and a 20 m (65.6 ft) Belden H155 coaxial cable with pre-fitted connectors as standard.</p>
Technical Support	Meinberg offers free lifetime technical support via telephone or e-mail.
Warranty	Three-year warranty
Firmware Updates	Firmware is field-upgradeable, updates can be installed directly from the unit or via a remote network connection. Software updates are provided free of charge for the lifetime of your Meinberg product.
RoHS Status of Product	This product is fully RoHS-compliant.
WEEE Status of Product	This product is handled as a B2B (Business to Business) category product. To ensure that the product is disposed of in a WEEE-compliant fashion, it can be returned to the manufacturer. Any transportation expenses for returning this product (at end-of-life) must be covered by the end user, while Meinberg will bear the costs for the waste disposal itself.
Additional Information	<p>Further information on the Meinberg range of LANTIME NTP time servers and other LANTIME models can be found on the [3]LANTIME overview page.</p> <p>Note: The SyncFire cannot be operated as a general-purpose server. It is designed to operate exclusively as a high-performance NTP server and does not support the installation of a standard operating system for general-purpose server applications.</p>

Manual

There is no online manual available for this product.: [4][Contact us](#)

Links:

- [1] <https://www.meinbergglobal.com/english/products/gps-antenna-converter.htm>
- [2] <https://www.meinbergglobal.com/english/products/gnss-multi-band-antenna.htm>
- [3] <https://www.meinbergglobal.com/english/products/ntp-time-server.htm>
- [4] <mailto:info@meinberg.de>