LANTIME M200/GPS

NTP Time Server with integrated GPS Reference Clock

LANTIME M200 time servers can be installed to provide accurate time to small and medium sized computer networks. This entry level time server synchronizes all systems either NTP- or SNTP-compatible utilizing a built-in Meinberg GPS radio clock as its primary reference time source. A stable and precise oscillator is capable of bridging interferences or a temporary loss of reception.

Key Features:

- Synchronization of NTP and SNTP compatible clients
- Web based status and configuration interface and console based graphical configuration utility
- Supported networking protocols: IPv4, IPv6, HTTPS, HTTP, SSH, TELNET, SCP, SFTP, FTP, SYSLOG, SNMP
- USB port for performing updates, lock front panel and backup/restore configuration and log files.
- Antenna connected with up to 300m of standard coaxial cable RG58

Description:

The GNU/Linux operating system of the LANTIMEs SBC (Single Board Computer) has been optimized to ensure a high level of security and reliability.

A large LC display shows the state of the internal GPS receiver and the NTP subsystem.

Three LEDs (green/red) indicate the status of the three main components: Reference Time (GPS), Time Synchronization Service (NTP) and Network (Link status). A fourth red LED is labelled ALARM and can be configured to signal any event that is covered by the notification handling routines.

The configuration of the system can be done by using a standard web browser for accessing the extensive but straightforward html interface. Alternatively a text based and menu driven setup utility can be started from the shell prompt after logging into the unit via Telnet or SSH.

The security-related features of LANTIME time servers satisfy highest demands. The time synchronization data can be reliably signed and secured by symmetric keys (MD5) and the NTP autokey procedures. This protects the clients against manipulated time and man-in-the-middle attacks and allows them to verify that the NTP packets they received were send by the LANTIME. Additionally the whole LANTIME configuration can be done by using encrypted channels (e.g. SSH, HTTPS or SNMPv3). Every unused/unneeded protocol can be disabled in order to reduce possible points of attack.

In order to support network management systems the LANTIME time servers offer an extensive SNMP interface, which can be accessed by SNMP V1, V2.c and V3. It allows the monitoring of all relevant system parameters (including operating system parameters, network interface statistics, detailed GPS and NTP status information as well as the complete system configuration) and can be used to alter the LANTIME configuration via SNMP set commands, too.

LANTIME time servers are designed to be deployed in IPv6 networks, the NTP time synchronization as well as the configuration interfaces (Web-based, SSH and SNMP) comes with IPv6 support. You can assign several IPv6 addresses and the system supports automatic configuration by IPv6 autoconf.

The LANTIME M200 GPS is equipped with a high precision „TCXO“ oscillator. The oscillator determines the holdover characteristics (e.g. when the GPS signal is disturbed or jammed)

- One-Year Warranty
- Lifetime technical support via telephone or E-Mail including Firmware Updates

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Date: 2011-11-22

LANTIME M200/GPS Specifications

Front Panel:

1 x LC display, 40 character x 2 rows

4 x Status LEDs

Rear Panel:

1 x RS232 interface (rear panel), 9pin D-Sub male connector
for VT100 terminal

1 x USB (Rev. 1.1) connector for
- performing updates,
- lock front panel and
- backup/restore configuration and log files.

Network Interface:

1 x LAN interface, RJ45 connector with Link-/Activity/Speed LEDs

Synchronization Source Input:

1 x Meinberg GPS antenna input, BNC female connector, isolated

GPS Antenna/Converter Unit with mounting kit

System Components:

- GPS170 with TCXO
- Single board computer with Linux operating system
  - NTPv4, SNTP, symmetric Keys, Autokey, Broadcast,
  - SNMPv1,2,3, SNMP Trap, SSH2, IPv6, DHCP,
  - HTTP(S), eMail, FTP, Telnet, Syslog
- Power supply: 100-240 VAC
  (also available in different DC variants)
- Metal desktop chassis, 1U/63HP, slimline
  335 mm wide x 43 mm high x 250 mm deep

Scope of Supply:

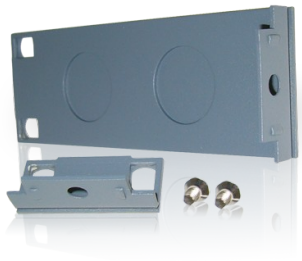
The system will be delivered inclusive of antenna/converter unit mounted in waterproof plastic case, antenna mounting kit and 20 m (65,6 feet) coax-cable RG58.

Package dimensions:
60 cm x 40,5 cm x 27 cm / approx. gross weight per box: 8.5 kg.

(23.6 inch x 15.9 inch x 10.6 inch /
approx. gross weight per box: 18.7 pound).

Optional:

19" Rackmount kit



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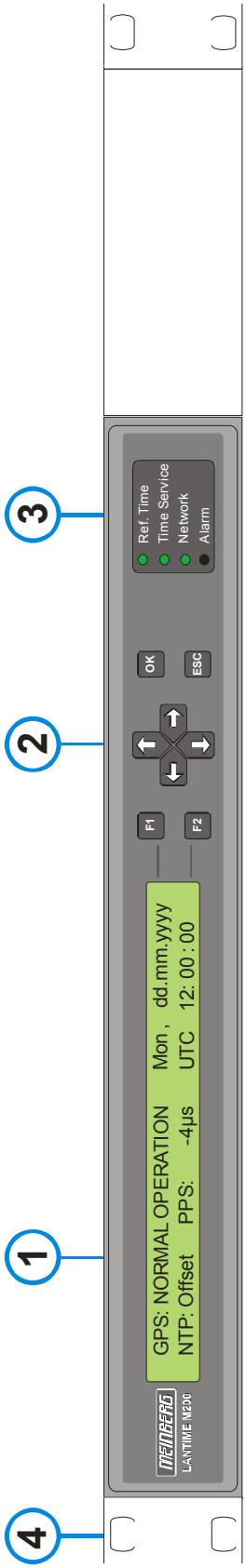
Front View



Deutsch

1. LCD Display
2. Funktionstasten: 4-Wege Navigationstasten; F1,F2,OK,ESC
3. Status LEDs: Ref. Time, Time Service, Network, Alarm
4. Optional erhältliche Einbauwinkel zur 19" Rackmontage

English

1. LCD Display
2. Function buttons: 4-way navigation button; F1, F2, OK, ESC
3. Status LEDs: Ref. Time, Time Service, Network, Alarm
4. Optional brackets for rack mount installations

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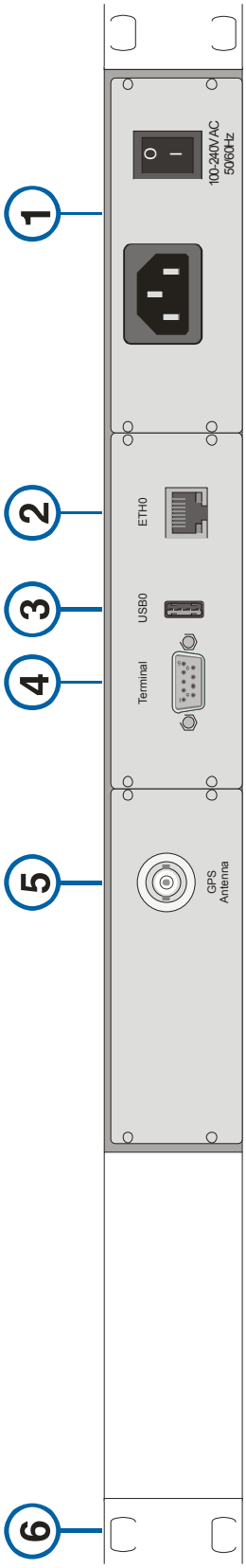
Rear View



English

1. Power supply unit with power switch
2. Network interface (10/100base-T RJ45)
3. USB port for firmware updates and backup/restore of configuration files
4. Serial console port for configuration (RS232, set your terminal Program to 38400 baud, 8N1)
5. GPS antenna input (Meinberg GPS Antenna)
6. Optional brackets for rack mount installations

Deutsch

1. Netzteil mit Netzschalter
2. Netzwerk-Schnittstelle (10/100base-T RJ45)
3. USB Port für das Einspielen von Updates oder das Sichern/Wiederherstellen von Konfigurationsdateien
4. Serielle Schnittstelle (RS232) zur Konfiguration des Systems
5. Antenneneingang (Meinberg GPS Antenne)
6. Optional erhältliche Einbauwinkel zur 19" Rackmontage

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