LANTIME M150: NTP Time Server for DIN Rail Installations

The LANTIME M150 time server is designed by Meinberg to offer superior NTP server performance in an industrial environment with a robust rail-mountable chassis. Constructed to order with a selection of signal receivers to enable you to synchronize your NTP server to the remote timing signal that you trust most, the LANTIME M150 time servers can be built to support timing signals from any of the main satellite navigation systems in operation (GPS, Galileo, BeiDou, GLONASS) or from a long-wave timing signal radio service (DCF77).

Key Features

-   Selectable Reference Sources: GPS: Satellite receiver for the Global Positioning System GNS: Combined GPS/GLONASS/Galileo/BeiDou satellite receiver, can also be used for mobile applications GNS-UC: GPS and Galileo Satellite Receiver with Up-Converter for Meinberg GPS Antenna/Converter PZF: DCF77 correlation receiver for middle europe
-   Synchronizes NTP-compatible clients with support for NTP, SNTP, and NTS - Network Time Security
-   Web interface that is both powerful and easy to use
-   USB port for installation of firmware updates and backup/restore of configuration and log files
-   Command line interface for advanced power users with absolute control over every facet of the server's functionality
-   Comprehensive networking support, including full HTTPS encryption for Web Interface and REST API with TLS certificate management
-   Support for syslog, SNMP, and SMTP for comprehensive event logging, network integration, and notification functionality
-   GNS models include Multi-GNSS antenna for reception of GPS, Galileo, BeiDou, and GLONASS signals
-   GPS and GNS-UC models include Meinberg IF antenna of reception of GPS signals and, with GNS-UC models, also Galileo signals

Description

The Operating System - LANTIME OS
Meinberg's custom Linux-based LANTIME OS, a slim & secure operating system developed specially for the needs of a time server, powers the LANTIME M150 under the hood, providing access to all the security, network, and monitoring features that you could ever need from an enterprise-grade synchronization appliance.

LANTIME Configuration and Monitoring
The powerful Web UI enables you to quickly and easily configure and monitor your LANTIME device, while the CLI provides power users with unparalleled flexibility and efficiency. The comprehensive LANTIME OS REST API provides a complete toolset for your network orchestration and automation needs, and SNMP support allows you to integrate your Meinberg systems into your existing network management system.

Oscillator Option The LANTIME M150 is shipped as standard with a

Characteristics

Status Indicators	Four bicolor LEDs indicating: - Reference time status - Time service status - Network link status - Alarm states
Network Interface	1 x 10/100/1000Base-T RJ45 Up to 25,000 NTP requests/second
Management Interface	8P8C (RJ45-like) female connector for serial terminal access
Universal Serial Bus (USB) Ports	1x USB port on front panel for: - installing firmware upgrades - performing backups and restoration of configuration files - copying security keys - locking & unlocking front buttons
Power Consumption	20 W
Operating Voltage	**AC/DC power supply (standard)** Rated voltage range: UN = 100-240 V AC (50-60 Hz) / 100-240 V DC Max. voltage range: Umax = 90-264 V AC (47-63 Hz) / 100-250 V DC **Low DC (option):** Rated voltage: UN = 48 V DC Max. voltage range: Umax = 20-60 V DC
Form Factor	DIN Rail mountable Aluminium Profile chassis (125,5mm x 105mm x 189mm / W x H x D)

CPU

	* Intel® Atom

Operating System of the SBC	Custom LANTIME OS based on Linux 4.x LTS Kernel.
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 Secure (HTTPS)	HTTP(S) for web interface and REST API access
Secure Shell (SSH)	SSH v1.3, SSH v1.5, SSH v2 (OpenSSH)
Telnet	Telnet (RFC 854-RFC 861)
Supported Temperature	Operational: 0 - 50 °C (32 - 122 °F) Storage: -20 - 70 °C (-4 - 158 °F)
Supported Humidity	Max. 85 % (non-condensing) at 40 °C
Contents of Shipment	Included in delivery is a MEINBERG outdoor antenna incl. mounting kit, pre-assembled antenna cable, CAB-CONSOLE-RJ45 cable for initial setup.
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	Additional information about the Meinberg LANTIME family of NTP time servers and other LANTIME models can be found on the [1]<u>LANTIME overview page</u> .

Manual

There is no online manual available for this product.: [2]<u>Contact us</u>

Links:

[1] https://www.meinbergglobal.com/english/products/ntp-time-server.htm
[2] mailto:info@meinberg.de