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LANTIME M100: NTP Time Server with internal Reference Clock for DIN Rail Installations

LANTIME M100 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 radio clock as its primary reference time source. A stable and precise oscillator is capable of bridging interferences or a temporary loss of reception. Its compact form factor offers an ideal solution to network time synchronization needs in industrial and power generation/distribution networks.

Key Features

- Selectable Reference Sources: GPS: Satellite receiver for the Global Positioning System GNS: Combined GPS/GLONASS/Galileo/BeiDou satellite receiver (L1 frequency band), 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
- Synchronization of NTP and SNTP compatible clients
- Web-based status and configuration interface and console-based graphical configuration utility
- Supported net protocols: IPv4, IPv6, NTP, (S)NTP, DAYTIME, DHCP, HTTP, HTTPS, FTP, SFTP, SSH, SCP, SYSLOG, SNMP, TIME, TELNET
- USB Port for installing firmware updates, locking frontpanel menu access and backup/restore of configuration and log files
- Meinberg GPS Antenna/Converter Unit connected with up to 300m of standard coaxial cable RG58

Description

Three LEDs (green/red) indicate the status of the three main components: Reference Time (e.g. GPS), Time Synchronization Service (NTP) and Network (Link status). A fourth red LED is labeled 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. Initial configuration can be performed using the RS232 console port and a terminal program.

The LANTIME M100/GPS is equipped with a high precision "TCXO" (oscillator option: up to "OCXO HQ"). Please check our oscillator options page for technical specifications. The oscillator determines the holdover characteristics (e.g. when the received signal is disturbed or jammed).

Characteristics

Control Elements	Serial Terminal Interface (RS232) for initial configuration, Status LEDs
Status Info	Four bicolor LEDs showing status of: - reference time - time service - network - alarm
Network Interface	RJ-45 Network Connection 10/100 MBit
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 Supply	Standard: 100-240 V DC / 100-240 V AC,(50/60 Hz) Option: 20-60 V DC
Power consumption	20W
CPU	
	* AMD Geode

Operating System of the SBC	Linux with nano kernel (incl. PPSkit)
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)	IP v4, IP v6
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)
Daytime Protocol (DAYTIME)	Daytime Protocol (RFC 867)
IEC 61850	Synchronization of IEC 61850-compliant devices using SNTP
Hypertext Transfer Protocol (HTTP)	HTTP/HTTPS (RC 2616)
Secure Shell (SSH)	SSH v1.3, SSH v1.5, SSH v2 (OpenSSH)
Telnet	Telnet (RFC 854-RFC 861)
Form Factor	DIN Rail mountable Aluminium Profile chassis (125,5mm x 105mm x 189mm / W x H x D)
Ambient Temperature	0 ... 50 °C / 32 ... 122 °F
Humidity	Max. 85 %
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 and documentation on USB storage.
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 category product. For disposal, it must be returned to the manufacturer to ensure WEEE compliance. Any transportation expenses for returning this product (at end-of-life) must be covered by the end user, while Meinberg will cover 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]LANTIME NTP Time Server Family Page .

Manual

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

Links:

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