LANTIME M300: NTP Server in 1U Case for Server Rackmount

[1] The Meinberg LANTIME M300 time server provides accurate time to networks of any size. It synchronizes all NTP- or SNTP-compatible systems. The M300 time server uses as a reference time source either any compatible external or built-in Meinberg reference clock (Stratum 1 mode) or up to 7 NTP servers (Stratum 2 mode).

Key Features

- Selectable Reference Time 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 MSF: Long wave receiver for Great Britain WWVB: Long wave receiver for the US time signal TCR: Time code receiver for IRIG A/B, AFNOR or IEEE1344 codes MRS: (GPS, PPS, 10MHz, NTP): Multi Reference Source - several reference sources, adjustable following priority of signal RDT: (external PPS or NTP): Time Server without internal receiver module
- 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
- Alert-Notification system of status change by Email, WinMail, SNMP or an external connected display
- Full SNMP v1,v2,v3 support with own SNMP-daemon for status and configuration and SNMP Trap messages
- 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
- Meinberg's LANTIME time server is available with a variety of additional output options: IRIG Time Code, frequency synthesizer and programmable pulse outputs illustrate some of the many expansion options for your NTP server
- Two (standard) or optional up to six independant RJ-45 ethernet interfaces 10/100 MBit

Description

A large display shows the state of the NTP subsystem.

The configuration of the system can be done by using a standard web browser to access 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.

Because of its modular system architecture it is possible to equip this LANTIME time server with up to six ethernet ports, even fiber optic network ports and one or three Gigabit Ethernet ports are available as an option.

Characteristics

Display	LC-display, 2 x 40 characters, with backlight
Control elements	Eight push buttons to set up basic network parameters and to change receiver settings
Status info	Four bicolor LEDs showing status of: - reference time - time service - network - alarm
Frequency outputs	10 MHz via female BNC connector, TTL into 50 Ohm Accuracy depends on oscillator (standard: TCXO), look at Delete [2]oscillator list
Pulse outputs	Pulse Per Second (PPS), TTL level, pulse width: 200ms
Accuracy of pulse outputs	Depends on oscillator option: < ±50ns (OCXO SQ, OCXO MQ, OCXO HQ, OCXO DHQ)
Interface	Two independent serial RS-232 interfaces, menu configurable (in case of RDT models without internal receiver - the serial interfaces will be used as reference input).
Optional Output Signals	**Additional Output Options::** This LANTIME NTP server comes with many additional outputs options: PPS, 10MHz, programmable pulse outputs (PPS, PPM, PPH, DCF_MARK ...), IRIG modulated and unmodulated time code, T1 / E1 telecom signals, Frequency Synthesizer - to name just a few. Contact us for your specific device configuration.
Data format of interfaces	**COM 0:** Baudrate: 300, 600, 1200, 2400, 4800, 9600, 19200 Baud Data Format: 8E1, 8E2, 8N1, 8N2, 8O1, 7E1, 7E2, 7N2, 7O1, 7O2 Time Telegram: [3]Meinberg Standard-Telegram , SAT, NMEA RMC, Uni Erlangen (NTP), COMPUTIME, Sysplex, [4]Capture-Telegramm, SPA, RACAL, Meinberg GPS, NMEA GGA, NMEA RMC GGA, NMEA ZDA, ION, 6021 or IRIG-J

Network Interface	**Standard:** 2 x 10/100 MBit with RJ45 connector
	Available Options:
	* 2 or 4 x additional 10/100 MBit with RJ45
	* 1 x 10/100 MBit and 1 x 10/100/1000 MBit (1GE) with RJ45 or 1 x 10/100 MBit and 3 x 10/100/1000 MBit (3GE) with RJ45 jack
Universal Serial Bus (USB) Ports	1x USB Port in front panel: - install firmware upgrades - backup and restore configuration files - copy security keys - lock/unlock front keys
Power supply	Standard: 100-240 V AC (50/60 Hz) available DC variants: 100-200 V DC, 12 V DC and 20-60 V DC
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 (incl. 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
Parallel Redundancy Protocol (PRP)	PRP (IEC 62439-3)

Time Protocol (TIME)	Time Protocol (RFC 868)
Daytime Protocol (DAYTIME)	Daytime Protocol (RFC 867)
IEC 61850	Synchronization of IEC 61850 compliant devices by 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)
Simple Network Management Protocol (SNMP)	SNMPv1 (RFC 1157), SNMPv2c (RFC 1901-1908), SNMP v3 (RFC 3411-3418)
Form Factor	19 inch multipac metal case 1U/84HE
Ambient temperature	0 ... 50°C / 32 ... 122°F
Humidity	Max. 85%
Scope of supply	Included in delivery is a MEINBERG outdoor antenna incl. mounting kit, pre-assembled antenna cable (except MRS, TCR and RDT models) and product 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 at 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 the product	This product is fully RoHS compliant
WEEE status of the product	This product is handled as a B2B category product. In order to secure a WEEE compliant waste disposal it has to be returned to the manufacturer. Any transportation expenses for returning this product (at its end of life) have to be incurred by the end user, whereas 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 [5]LANTIME NTP Time Server Family Page .

Manual

There is no online manual available for this product: [6]Contact us

Links:

[1] https://www.meinbergglobal.com/english/products/
[2] https://www.meinbergglobal.com/english/specs/gpsopt.htm
[3] https://www.meinbergglobal.com/english/specs/timestr.htm
[4] https://www.meinbergglobal.com/english/specs/capstr.htm
[5] https://www.meinbergglobal.com/english/products/ntp-time-server.htm
[6] mailto:info@meinberg.de