

NETWORK TIME SERVER

NTS / NTS IT

The network time server NTS is a compact and powerful NTP time server with a very good price-performance ratio. It can be used almost anywhere to synchronize time service systems, computers, fire alarm systems, audio and video surveillance systems, etc. with the exact time via NTP.



HIGHLIGHTS

COMPACT

The NTS is about a third the size of conventional time servers and therefore extremely space-saving.

COST-EFFECTIVE

With the NTS, a time system can be implemented even on a small budget.

VERSATILE MOUNTING

The NTS can be screwed to a wall using mounting brackets. 19" rack installation is also possible with the optional mounting elements.

VARIANTS



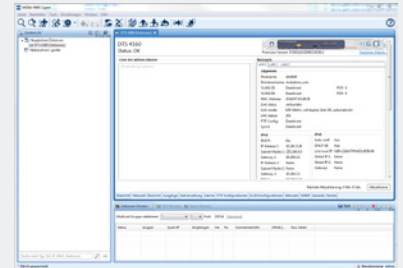
NTS (Art. no. 117 990)
Standard version, configurable via terminal or MOBA-NMS



NTS IT (Art. no. 118 464)
Version for IT systems, configurable via terminal or web interface



Mounting kit (Art. no. 111 782)
Aluminum brackets for 19" rack mounting (NTS not included)

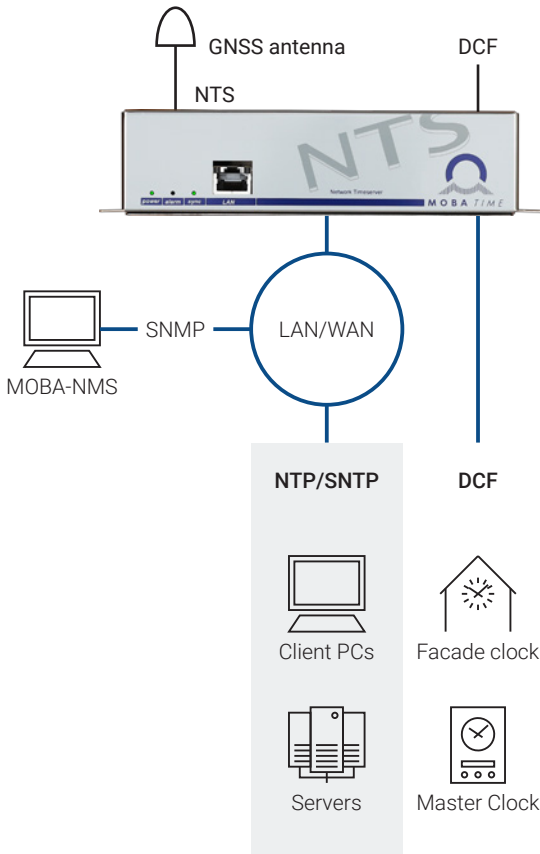


NETWORK MANAGEMENT SYSTEM

MOBA-NMS

The NTS can be fully monitored, configured and controlled using the Mobatime Network Management System software (MOBA-NMS).

APPLICATIONS



TECHNICAL DATA

MECHANICAL DATA AND ENVIRONMENT

General data

Dimensions: 170 x 44 x 85 mm (19", 1U)

Weight: 1.35 kg

Housing material: Stainless steel

Protection degree: IP 20

Operating temperature: -5–50 °C

Operating humidity: 10–90 % relative, no condensation

Power supply: 90–240 VAC, 0.12 A (with external power supply unit (included in delivery)); 24–28 VDC, 0.2 A

MTBF: > 250,000 h

STANDARDS

Conformity

The NTS conforms to the following agency approvals¹:

CE, UKCA, CB, RoHS, WEEE

EMC: EN 50121-4, EN 61000-6-3, EN 61000-6-2

Safety: IEC 62368

¹ For full list, see product manual

REFERENCE SIGNAL INPUTS

- 1x DCF current loop (e.g. GNSS 4500)
- External NTP / SNTP server (4 NTP sources possible)

REFERENCE SIGNAL OUTPUTS - NETWORK

- NTP server (<250 requests/second)
- NTP mode: Server, Peer, Broadcast, Multicast / SNTP / MD5 and SHA1 authentication for NTP
- TIME (RFC 868), DAYTIME (RFC 867)

REFERENCE SIGNAL OUTPUTS - NON-NETWORK

- 1x DCF77 (time zone selectable) or PPS (configurable)

NETWORK INTERFACE

- 1x 10/100BaseT

NETWORK FEATURES

- NTP V4/V3 server (RFC 5905/1305) / SNTP (RFC 4330)
- IP configuration: IPv4 (DHCP, static IP), IPv6 (autoconfiguration, DHCPv6, static IP)

ALARMS

- Network outputs: SNMP notifications (Traps) V2c, Mail (RFC 4954, 2195)
- Alarm LED

OSCILLATOR STABILITY

- Holdover (after 24h synchronization) at room temperature < +/- 0.1 s/day

ACCURACY (TYPICAL VALUES)

- Internal
 - NTP to internal time: < +/- 0.5 ms
- Time signal output
 - GNSS to NTP: < +/- 0.5 ms
 - GNSS/NTP to DCF/pulse: < +/- 2 ms
 - DCF to NTP: < +/- 5 ms

MANAGEMENT & SUPERVISION

- MOBA-NMS (NTS IT: web interface); monitoring possible
- Terminal menu: Serial connector (RS-232), SSH, Telnet
- SNMP (v1/v2c/v3), SNMPv3 with authentication and encryption
- System firmware download via SCP, SFTP or FTP
- LEDs: Alarm, Power, Sync

SECURITY

- Configuration and log files are stored on non-volatile memory in order to survive power failures
- See Mobatime security guideline (available on request)
- SNMPv3, SCP, SSH, NTP authentication

INTERFACES



1	Status LEDs	Power (green), alarm (red), synchronization (green)
2	LAN	RJ45 10/100MBit Maintenance/NTP
3	Status LEDs	Operation (green), DCF signal (red)
4	DCF In/Out	6-pin terminal DCF current loop input for the connection of a GNSS 4500 DCF output, current loop passive DC output (28 VDC, max. 100 mA), e.g. GNSS 4500
5	Mains power supply¹	C14 plug 90–240 VAC, 50/60 Hz 0.5 A