

MULTI-PURPOSE TIME SERVER

DTS 4128.TIMESERVER

The DTS 4128.timeserver is a combined time distribution and synchronization device with network interface. With its high-precision and intelligent concept for redundant operation, it offers a high degree of reliability and availability.



HIGHLIGHTS

HIGH-PERFORMANCE NTP SERVER

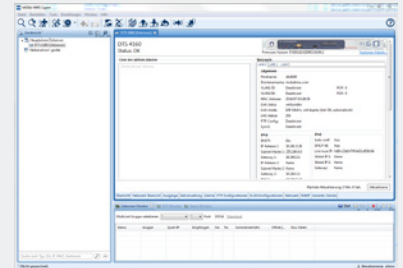
The DTS 4128 can reply to more than 3'000 NTP and SNTP requests per second (up to 15'000 clients depending on NTP client configuration).

REDUNDANT LINK

For utmost availability, two DTS 4128 can be connected to offer redundant master-slave operation with automatic switch over in case of an error.

HIGH ACCURACY

The DTS 4128 can receive all GNSS signals (GPS, Galileo, GLONASS, BeiDou), guaranteeing utmost accuracy and availability. For GNSS security, multiple constellations can be used in parallel.

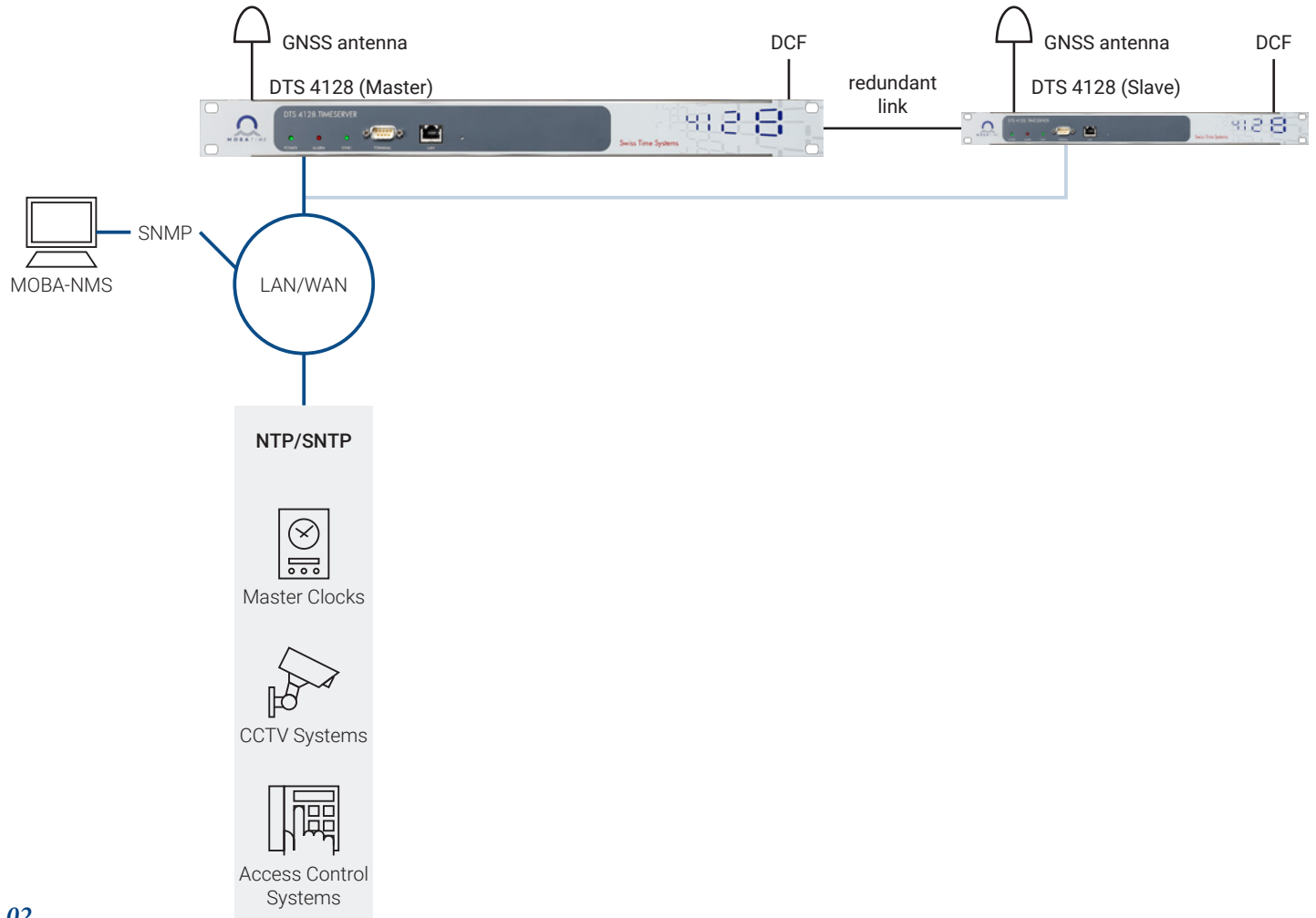


NETWORK MANAGEMENT SYSTEM

MOBA-NMS

The DTS 4128.timeserver 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: 483 x 44 x 125 mm (19", 1U)

Weight: 1.8 kg

Housing material: Stainless steel

Protection degree: IP 20

Operating temperature: 0–50 °C

Operating humidity: 10–90 % relative, no condensation

Power supply: 24–28 VDC, 2 A

MTBF: > 250,000 h

STANDARDS

Conformity

The DTS 4128.timeserver 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 (<1'500 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

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

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

ACCURACY (TYPICAL VALUES)

- Internal
 - Redundant connection to internal time: < +/- 1 µs
 - NTP to internal time: < +/- 100 µs
- Time signal output
 - GNSS to NTP: < +/- 100 µs
 - GNSS to DCF: < +/- 10 µs

MANAGEMENT & SUPERVISION

- MOBA-NMS; 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



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1	Status LEDs	Power (green), alarm (red), synchronization (green)
2	Terminal	RS232 interface for local management, D-Sub 9 connector
3	LAN	RJ45 10/100MBit Maintenance/NTP
4	DC power supply	2-pin terminal 24–28 VDC 2 A
5	DCF In/Out	6-pin terminal DCF current loop input for the connection of a GNSS 4500 DC output (28 VDC, max. 100 mA), e.g. GNSS 4500 DCF output, current loop passive
6	Alarm contact	2-pin terminal Normally closed Max. load: 30 W (30 VDC or 1 A) / 60 VA (60 VAC or 1 A)
7	DTS Link	SFP Redundant link