

## DTS 4135 timeserver for NTP

Hint: Refer to leaflet for more detailed information.

### Additional parts and options:

GPS 4500:	GPS receiver
SP 4500:	lightning protector
DTS 2440:	audio time announcer and signal generator
DTS 2340:	IRIG-B distributor
UPS DTS:	battery pack power reserve
MOBA-NMS:	configuration, management and supervision software

The master clock **DTS 4135.timeserver** is contained in a 19 " housing for rack mounting (1U). Main information, such as current time & date, synchronisation status, current network IP-address, power & alarm status, are displayed by LED's and on a LCD display (2 lines of 16 characters).

The network master clock has a built in NTP Server which can be configured in server, client or combined client-server mode in order to provide NTP (network time protocol) time distribution services in unicast or multicast modes over Ethernet LAN / WAN network.

It can operate as a NTP time zone server by providing up to 20 time zones into encoded NTP-frame for world time clock synchronisation.

In addition it provides the following synchronisation outputs: 2x RS232/RS485 configurable time telegram, 2x IRIG-B in both analog and DC level and 2x programmable pulse/frequencies.

The network parameters (IP and gateway addresses) of the master clock can be managed by DHCP protocol (dynamic) from a server or by SSH protocols (static).

Upon login/password identification, the master clock supports management and configuration through network remote access by MOBA-NMS software or via SNMP & encrypted SSH protocols. In addition a service port located on the front panel is available for direct configuration access.

The master clock can be synchronized by a GPS receiver or by IRIG-B time code. It can also operate in stand-alone mode thanks an embedded high quality oscillator (DTS 4135.timeserver: TCXO, DTS 4136.timeserver: OCXO) (in case of time source fail).

The master clock manage automatic and autonomous alarm notification by SNMP (alarm and alive traps), SMTP (e-mail) protocols and over embedded alarm relay.

**For highest availability, two DTS 4135.timeservers can operate as a redundant system linked with a fibre optic cable (optical link via SFP). In case of an error the second device automatically takes over without any impact on the linked NTP clocks or NTP clients**

Outputs:       ⇒ 1x LAN, NTP server (> 1250 req/s, 10/100 Mbit/s, RJ45)  
                  ⇒ 2x IRIG-B, each with analogue (BNC) and DC level  
                  ⇒ 2x programmable pulse/frequencies  
                  ⇒ 2x serial interface RS 232 / 422 for configurable serial time telegram  
                  ⇒ 1x alarm: potential free opening contact (embedded alarm relay)

Synchronisation: GPS (DCF), IRIG-B, serial time telegram or NTP protocol.

Operation:       communication over LAN/WAN (MOBA-NMS, SNMP, SSH or Telnet) or via serial interface RS 232 (PC terminal)

Monitoring:     LEDs: power, synchronization, alarm. Push button allowing to scroll information (status and alarm) on the LCD display.

Housing:         metal 19 "rack mounting, like IT equipment

Dimensions:     W x H x D in mm: 483 x 44 x 125

Power supply:   Redundant: 1x 90-240 VAC, 50/60 Hz and 2x 24 VDC, +20% / - 10%, max. 20 W