



# LEDI<sup>®</sup> NETWORK TS

High accuracy time server,  
delivering multiple time codes  
Supporting NTP V4 / IPV6 / SNMP



## Internal Time Base

LEDI<sup>®</sup> NETWORK Time Server (TS) is equipped with internal time base allowing timekeeping in case of loss of synchronization.

- **TCXO:**  
Frequency stability:  $2.10^{-8}$  (0°C to 60°C)  
Ageing:  $1.5.10^{-9}$  / day

## Security

- **Back up power is included by default.** Possibility of extended back up power capacity (see reference table 9220/ ). The duration of power reserve will depend on the configuration of the time server, please contact our sales team for more details.
- **Backup configuration settings** in flash memory.
- **Supervision via SNMP V3** or supervision software GT Supervision.
- **Remote configuration** via a Secure Website.

## Network protocoles

- **NTP (v2, v3, v4)** Client/Server, Broadcast, Multicast
- SNTP (v4)
- HTTPS
- **SNMP (v1, v2c, v3)**
- IPv4 / **IPv6** (DHCP v4 / v6 compatible)
- FTP / SCP
- SYSLOG

## Specification

<b>Power supply</b>	110-250 VAC – 50/60Hz - type IEC 60320 defined C14
<b>Power cable</b>	IEC 60320 defined C13 / MALE SCHUKO 2 (EUROPE) & (Type F)*
<b>Certifications</b>	CE, EN62368(safety), EN 55032 (EMC transmission), EN 55035 (EMC immunity), ROHS
<b>Maximal consumption</b>	20 VA
<b>IP</b>	31
<b>MTBF</b>	120 000 h
<b>MTTR</b>	Mother board: 10 min Display board: 5 min Output board: 5 min
<b>Weight</b>	2,3 kg (standard configuration)
<b>Dimensions</b>	Rack 19" 1U 482x44x266 mm (LxHxD)
<b>Display</b>	4 x 20 character LCD display with blue backlight
<b>Operating temperature</b>	-10° to 50°C
<b>Storage temperature</b>	-20° to 70°C

\*For other types of power cables, refer to the power cable reference table

## Key features

- **1 NTP/SNTP output is included in the basic configuration.**
- **Multiple synchronization outputs** of different time code types.
- **Threshold setting for security.**
- **Alarm management via SNMP TRAP (V1, V2C and V3),**
- **Alarm management** via static relays and screw terminal for synchronization and power supply, as option.
- Time base and algorithm to ensure **output accuracy up to 100 ns in GPS synchronization.**

## Configuration

- Remote configuration and time setting via embedded web interface.
- Automatic selection of time zone and daylight saving time.
- Supervision via HTTP et HTTP(s), SNMP, Telnet
- Firmware update via FTP or SCP (Secure Copy Protocol)
- Compatible IP v4/v6 (compatible DHCP v4/v6)
- IP Configuration by keyboard on front panel

## Synchronization inputs

Standalone quartz time base synchronized by:

- DCF (Europe)
- NTP Ethernet 10/100 base T
- GPS: Accuracy 100 ns
- Convertisseur GPS: Accuracy < 1 µs
- AFNOR NFS 87500 / IRIG B

## Synchronization outputs

- AFNOR NFS 87500/IRIG B. Accuracy: 20 µs
- DCLS AFNOR NFS87500 et IRIG B (TTL/ RS 422) Accuracy: 10µs
- NTP (V2, V3, V4) (Accuracy up to 50 µs) : Unicast, Multicast, Broadcast
- ASCII RS485 + TOP
- ASCII RS232 + TOP
- Tops 1000 Hz
- Alarms
- SMPTE/EBU
- Pulse or DCF24v



# LEDI® NETWORK TS

ITEM CODE

9220 /  /  /  /  /  /

**SYNCHRONIZATION INPUT**

(1) DCF	■	8	D							
(1) GPS converter	✘	8	C							
AFNOR NFS 87500/IRIG B (1KHz modulated)	■	8	8							
AFNOR NFS 87500/IRIG B DCLS (TTL or RS 422)	■	8	T							
NTP Ethernet 10/100 base T input	✘	8	N							
(1) GPS	✘	9	C							

(1) Antenne et câble à commander séparément (voir tableaux en bas de page)

**POWER SUPPLY**

110-250 VAC – 50/60Hz	■								0	
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**BACKUP BATTERY POWER**

Backup battery power NiMh	■									1
Extended Backup battery power NiMh	✘									2

**(2) PULSE OUTPUT OPTION**

Without	■									0
24V/1A Minute reversed parallel Pulse output	✘									3
1/2 Minute reversed serie 48 volts Pulse output	✘									5
DCF24v (on request)	■									-

**(2) SYNCHRONIZATION OUTPUT OPTION**

1 x NTP V4/SNTP server output on RJ45	■										K
ASCII RS232 output + 1 contact alarm output (synchronization or power supply defect)	■										G
Pulses 1000 Hz output	■										H
AFNOR NFS 87500/IRIG B (1Kz modulated) output	■										B
ASCII RS 485 + pulse output	■										R
ASCII RS 232 + pulse output	■										A
DCLS AFNOR & IRIG B (TTL / RS 422) outputs	■										T
Module SMPTE / EBU output module SMPTE LTC12M size –1999 and EBU/ UER LTC 3097	■										S
Blackburst / Glenlock input synchronization	■										
Tropicalization of electronic boards	■										U

(2) 1 pulse output max + 2 other outputs OU 3 synchronization outputs (maximum)

<b>DCF ANTENNA for Server Ref. 92208/D</b>	<b>ITEM CODE</b>
DCF Radiosynchronization Antenna + 4m cable	3D6
<b>GPS Converter ANTENNA for Serveur Ref. 92208/C</b>	<b>ITEM CODE</b>
GPS Antenna (converter) with 25m cable	3G25-V3
GPS Antenna (converter) with 50m cable	3G50-V3
GPS Antenna (converter) with 100m cable	3G100-V3

GPS ANTENNA for Server Ref. 92209/C

92225 /  /  /  /  /  /

<b>Antenna Type</b>											
GPS (Hardmount – to be used only with 25m and 50m cable)	■	Q									
GPS	■	G									
<b>Cable Type (LSZH*)</b>											
LMR 240 cable (25 m and 50 m cable)	■		3								
LMR 400 cable	■		4								
* Low smoke, no halogen.											
<b>Number of Cable</b>											
1 Cable	■									1	
<b>Cable length</b>											
25 m	■							25		00	
50 m	■							50		00	
80 m	■							80		00	
<b>OPTIONS</b>											
Lightning Surge Arrestor (+ 10 meters cable)	■										P
Inline Amplifier	■										A