



LEDI® NETWORK ITS V2m - 2U

High Accuracy secure time Server
with triple synchronization redundant inputs
and with multiple synchronization outputs

Internal Time Base

Its internal battery and its oscillator allow to provide stable time code output in case of synchronization or power supply failure.

Three quartz oscillators at choice:

	OCXO LN	OCXO	TCXO
frequency stability	5.10 ⁻¹⁰ (-10°C à 60°C)	1.10 ⁻⁹ (-20°C à 70°C)	1.10 ⁻⁶ (0°C à 60°C)
Ageing	3.10 ⁻¹⁰ / day	5.10 ⁻¹⁰ / day	2.10 ⁻⁹ / day

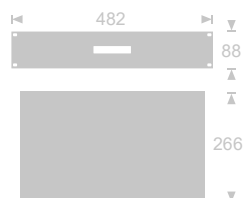
Security and network protocols

- **Basic power reserve included by default.** Possibility of extending the duration. Duration varies depending on the options chosen, contact us for more details.
- **Backup of configuration** setting in flash memory
- **Supervision** via SNMP V3 or supervision software GT SCADA or Syslog
- **Remote configuration** via secured web page
- **Configuration setting** command prompt via SSH
- **Firmware update** via FTP or SCP
- **Compatible IP v4/v6** (compatible DHCP v4/v6)
- **Configuration on Web interface via HTTP et HTTP(s)**
- **Secure access** to web interface by identifier and password
- **Authentication protocol and MD5 encryption**
- **Network communication** ports can be disabled

Specifications

Power supply	110-250VAC – 1,4 A max. – 50/60Hz – type IEC 60320 defined C14 and 18 - 36 VDC or 36 – 72 VDC – 2 points screw terminal block
Power Cable	IEC 60320 defined C13 / MALE SCHUKO 2 (EUROPE) & (Type F)*
Certifications	CE, EN62368 (safety), EN 55032 (EMC transmission), EN 55035 (EMC immunity), ROHS
Maximal Consumption	20 VA
IP	31
MTBF	110 000 h
MTBF/ MTTR	Mother board: 10 min Display board: 5 min Output board: 5 min
Weight	2,3 kg
Dimensions	19" 2U Rack. 482x88x266 mm (LxHxD)
Display	Orange OLED screen with backlight
Operating Temperature / hygrometry	-20 à 50°C / 0 à 90% HR
Storage temperature / hygrometry	-20 to 70°C / 10 to 85% HR
Maximum operating/ storage altitude	3 500 m (11 483 ft)

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



Key features

- **NTP/SNTP output included by default on RJ45**
- **Power Supply Redundancy 18-36 or 36-72 VDC with 110-250 VAC**
- **Configurable priorities of synchronization inputs**
- **Compensation of input delay due to transmission distance and threshold setting for security**
- **Time Base and algorithm ensuring output accuracy up to 50ns when synchronized to GPS/GNSS**
- **Independence and modularity of output boards**
- **PPS and 10Mhz output** (available with OCXO oscillator only) via BNC connectors
- **Alarm management via SNMP TRAP (V1, V2C, V3) and two static relay outputs** on screw terminal for synchronization and power supply alarms
- **Manual or automatic adjustment for transmission delay**
- **Local or UTC time display on front panel**

Configuration

- Remote Configuration and time setting via embedded web interface
- Automatic Time offset and DST on outputs
- IP Configuration by front panel keyboard
- Configuration file can be retrieved and uploaded via secured web interface
- Auto-IP v4

Synchronization inputs

1st time reference input (at choice):

- Multi-constellation GNSS Receiver: (GPS, GLONASS, BEIDOU, GALILEO) or GPS; Cold start, accuracy 10 to 50 ns; Cold start, précision 10 à 50 ns
- ASCII (NMEA 0183 RMC or ZDA by auto-detection) + TOP
- PPS input

2nd time reference input (at choice):

- AFNOR NFS 87-500/IRIG B/ IEEE1344
- NTP (V2, V3, V4) 10/100BaseT

3rd reference input (backup):

- Frequency input (between 1kHz and 10MHz)

Synchronization outputs

- Multiple outputs
- **NTP/SNTP output included by default on RJ45**
- PPS and 10Mhz output (available with OCXO oscillator only) via BNC connectors

NB: The RJ45 ports of the optional NTP outputs are independent and isolated by means of protocol break.

GNSS Antenna (option)

- For more information on our GNSS antennas, refer to the technical specifications (see reference table 92225/)

Storage Conditions

Conditions	Temperature	Hygrometry	Maximum cumulated duration
Extreme	-20°C to 0°C	10 to 85% HR	48h
Extreme	40°C to 70°C	10 to 85% HR	48h
Normal	10°C to 40°C	10 to 85% HR	6 months

The product must be lit for 4 hours every 3 months to keep its characteristics. see the user manual for more information.

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ITEM CODE

92197 /

1st SYNCHRONIZATION INPUT									
⁽¹⁾ GNSS multiconstellations (GPS, GLONASS, BEIDOU, GALILEO) – SMA connector	■	B							
⁽¹⁾ GPS Receiver – SMA connector	■	P							
ASCII (auto-detection NMEA 0183 RMC or ZDA) – DB9 port + TOP – BNC connector	■	T							
TOP (PPS) – BNC connector	■	M							
Without	■	0							

⁽¹⁾ Antenna and cable to be ordered separately, see table 92225/

2nd SYNCHRONIZATION INPUT									
AFNOR NFS 87-500/IRIG B (Modulation 1kHz – 12x) – 2 points screw terminal block	■		8						
IRIG B DCLS (No modulation 00x) – 2 points screw terminal block	■		T						
NTP 10/100 Base T – RJ45 port	■		N						
Without	■		0						

3rd SYNCHRONIZATION INPUT									
Without	■			0					
⁽²⁾ Frequency input 1kHz - 10MHz – BNC connector	✗			H					

⁽²⁾ Frequency Input: only available with OCXO oscillator, 1 other required input

POWER SUPPLY									
110-250 VAC 50/60Hz and 18-36 VDC	■				5				
110-250 VAC 50/60Hz and 36-72 VDC	■				8				
Dual power supply 110-250 VAC 50/60Hz	■				3				

OSCILLATOR									
TCXO, 1PPS output – BNC connector	■					T			
OCXO, 1PPS and 10 MHz outputs – BNC connectors	■					X			
OCXO LN, 1PPS and 10 MHz outputs – BNC connectors	■					Y			

BACKUP BATTERY POWER									
Without	■						0		
Backup battery power NiMh (in average max. 1h)	■						1		
Extended Backup battery power NiMh (in average max. 2h)	■						2		

⁽³⁾ SYNCHRONIZATION OUTPUTS									
4x AFNOR NFS 87-500/IRIGB/IEEE1344 (12x version) AC 2,2V – 8 points screw terminal block	■							B	
2x AFNOR NFS 87-500/IRIGB/IEEE1344 (12x version) AC 2,2V – BNC connectors	■							G	
1x ASCII RS232 – DB9 port + TOP – 2 points screw terminal block (Protocols selectable)	■							E	
1x x ASCII RS485 – DB9 port + TOP – 2 points screw terminal block (Protocols selectable)	■							F	
1x NTP V4/SNTP - RJ45 port	■							K	
2x NTP V4/SNTP - RJ45 ports	■							L	
4x IRIG B (12x version) AC 8,8V – 8 points screw terminal block	■							H	
4x PPS, PPM, PPH, PP2S, DCF (TTL, phototransistor, DTTL) – 8 points screw terminal block	■							P	
4x PPS, PPM, PPH, PP2S, DCF (TTL, static relay, DTTL) – 8 points screw terminal block	■							Q	
4x AFNOR NFS 87-500/IRIG B/IEEE1344 DCLS (00x version) (TTL, phototransistor, DTTL) – 8 points screw terminal block	■							T	
2x AFNOR NFS 87-500/IRIG B/IEEE1344 DCLS (00x version) (TTL, phototransistor, DTTL) – BNC Connector	■							D	
4x AFNOR NFS 87-500/IRIGB/IEEE1344 DCLS (00x version) (TTL, static relay, DTTL) – 8 points screw terminal block	■							V	
4x ASCII RS 232 unidirectional – DB9 port (unique GT Protocole)	■							A	
4x ASCII RS 485/RS 422 unidirectional – DB9 port (unique GT Protocole)	■							R	
1x SMPTE / EBU module output format SMPTE LTC12M –1999 and EBU/ UER LTC 3097 – 3 points XLR connector	■							S	
Blackburst / Glenlock synchronization input – BNC Connector	■							U	
Tropicalized	■								

⁽³⁾ Max. 8 output boards

SOFTWARE

NTP/SNTP client software Windows®. 10 licenses.

This option is required for a secure synchronization of PC under Windows.

NTP/SNTP client software Compatibles OS Windows® 10 licenses	<input type="checkbox"/>	CDG021
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