



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

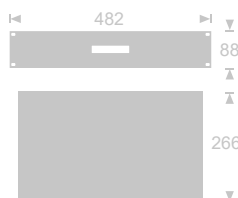
Security and network protocols

- **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							
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)Entrée de fréquence 1kHz - 10MHz – BNC connector	✕	H							
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	■								
Tropicalized	■	U							

(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	■	CDG021	
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