TIME SERVERS LEDI®NETWORK RADIO TIMING®

Time & frequency synchronization





www.gorgy-time.com



MADE IN FRANCE

You can trust the European number one to synchronize your equipment



GORGY TIME has been designing high-precision time references for more than forty years. These time installations have garnered international renown in industries such as airports. railways, metro lines, radio and television studios, hospitals, power stations, industries, ...

ARE YOU LOOKING FOR A SECURED AND RELIABLE SYSTEM? CHOOSE A GORGY TIME SOLUTION:

A time server is an integrated component of an ICT network, and Most operations which involve event time-stamping require its role is to distribute the time to the other network components. For this, it has a synchronization input (GNSS, IRIG...) as well as In order for systems including a sampling unit to work correctly, the an internal clock based on a precise oscillator. Time distribution is required precision may reach tens of nanoseconds. made possible thanks to the NTP network protocol.

Beside an NTP output, GORGYTIME time servers provide a range of additional outputs enabling systems which do not have an Ethernet interface to be synchronized (IRIG B, 1 PPS, ASCII, SMPTE, E1/T1).

GORGY TIME systems adapt to the precision you need The precision you need depends on the application and on the operations to be carried out.

precision to a hundred milliseconds.

Audio or video recording systems generally require precision to a millisecond.

If the objective is to supply time information to clocks or communications displays, a tenth of a second will usually suffice.

To achieve good time precision, we recommend using a GNSS (GPS/GLONASS/BEIDOU/GALILEO) synchronization input. Currently, this offers the best value for money in terms of performance.

MODULAR TIME SERVERS WITH WEB INTERFACE

MULTIPLE CONFIGURATIONS

- In addition to the GPS, the GORGYTIME time servers can use GALILEO, BEIDOU, GLONASS, NTP, PTP, IRIG-B/ AFNOR NFS87500, 1PPS, NMEA message and DCF as time sources.
- A 1 to 10MHz frequency input as backup is also available.
- The servers are also capable of generating a large number of output signals: IRIG-B, ASCII messages, NTP, pulsed code, SMPTE, 1PPS and 10MHz,

GORGY TIME

TIME INFORMATION **REDUNDANCY AND CONTROL**

- IRIG-B, PTP and NTP receivers are also available as options, giving you a real alternative to GNSS.
- All of our receivers are based on at least 3 consecutive and coherent pieces of information for synchronization, guaranteeing time information integrity.

FLEXIBILITY AND EXCEPTIONAL SECURITY

- Up to 25 dedicated and isolated Ethernet ports, more than enough to reply to thousands of NTP requests per second while maintaining the clock's precision to the microsecond.
- Having multiple ports gives you great flexibility and adaptability to your networks while ensuring security for sensitive networks.

GORGY TIME SERVER	Synchronizat inputs	
LEDI® Network ATS	GNSS, GPS, NTP, F ASCII+TOP, Frequ	
LEDI® Network ITS V2m	GNSS, GPS, NTP, II ASCII+TOP, Frequ	
RT 4000	GNSS, GPS, NTP, I ASCII+TOP	
LEDI® Network TS	GPS, NTP, DCF, IR	
LEDI® Network TDS	GPS or NTP	
LEDI® Network TDS GPS - DIN TH 35	GPS or NTP	

Synchronization inputs	Quartz	Available output time codes	Maximum number of inputs	Maximum number of independent NTP ports	Accuracy on GNSS input +/- 10ns	IP connectivity	Hot plug system	Redundancy power supplies 230VAC+18-36VDC	SNMP supervision	Target applications
GNSS, GPS, NTP, PTPv2, ASCII+TOP, Frequency	Rubidium (1.10 ⁻¹²)	IRIG-B, PTP, NTP, ASCII multi-protocol, PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF, E1/T1, PTPv2	3	5	10 ns	IPv4/IPv6		~	SNMP versions 1, 2C, 3 supported	Military & defense, on board system, high-frequency trading, Telecom, power plant
GNSS, GPS, NTP, IRIG-B, ASCII+TOP, Frequency	0CX0 (1.10 ⁻¹⁰) TCX0 (1.10 ⁻⁸)	IRIG-B, PTP, NTP, ASCII multi-protocol, PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF	3	19 2"rack	1 µs	IPv4/IPv6		~	SNMP versions 1, 2C, 3 supported	Broadcasting, banks, administrations, ICT servers, airports, power stations
GNSS, GPS, NTP, IRIGB, ASCII+TOP	OCXO (1.10 ⁻¹⁰) TCXO (1.10 ⁻⁸)	IRIG-B, NTP, ASCII multi-protocol, PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF, impulsed DCF 24v	8	25	1 µs	IPv4/IPv6	v	up to 10 independent feed inputs	SNMP versions 1, 2C, 3 supported	Airports, power stations, railways
GPS, NTP, DCF, IRIG-B	TCXO (1.10 ⁻⁸) XO (1.10 ⁻⁶)	IRIG-B, NTP, ASCII multi-protocol, PPS, SMPTE-EBU, Configurable Pulses, DCF 24v	1	2	1 µs	IPv4/IPv6		VAC or VDC	SNMP versions 1, 2C, 3 supported	Administrations, ICT servers, broadcasting
GPS or NTP	TCXO (1.10 ⁻⁸)	NTP, IRIGB, ASCII, impulsed	1	1	1 µs	IPv4/IPv6		VAC	SNMP versions 1, 2C, 3 supported	Substations, digital clocks
GPS or NTP	TCXO (1.10 ⁻⁸)	NTP, IRIGB, ASCII, impulsed	1	Z1	1 µs	IPv4/IPv6		VAC	SNMP versions 1, 2C, 3 supported	Substations, digital clocks
	inputs GNSS, GPS, NTP, PTPv2, ASCII+TOP, Frequency GNSS, GPS, NTP, IRIG-B, ASCII+TOP, Frequency GNSS, GPS, NTP, IRIGB, ASCII+TOP GPS, NTP, DCF, IRIG-B	inputsQual 2GNSS, GPS, NTP, PTPV2, ASCII+TOP, FrequencyRubidium (1.10 ⁻¹²)GNSS, GPS, NTP, IRIG-B, ASCII+TOP, FrequencyOCX0 (1.10 ⁻¹⁰) TCX0 (1.10 ⁻⁸)GNSS, GPS, NTP, IRIGB, ASCII+TOPOCX0 (1.10 ⁻¹⁰) TCX0 (1.10 ⁻⁸)GPS, NTP, DCF, IRIG-BTCX0 (1.10 ⁻⁸) X0 (1.10 ⁻⁶)GPS or NTPTCX0 (1.10 ⁻⁸)	inputsQuali2Available output time codesGNSS, GPS, NTP, PTPv2, ASCII+TOP, FrequencyRubidium (1.10 ⁻¹²)IRIG-B, PTP, NTP, ASCII multi-protocol, PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF, E1/T1, PTPv2GNSS, GPS, NTP, IRIG-B, ASCII+TOP, Frequency0CX0 (1.10 ⁻¹⁰) TCX0 (1.10 ⁻⁸)IRIG-B, PTP, NTP, ASCII multi-protocol, PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCFGNSS, GPS, NTP, IRIGB, ASCII+TOP0CX0 (1.10 ⁻¹⁰) TCX0 (1.10 ⁻⁸)IRIG-B, NTP, ASCII multi-protocol, impulsed DCF 24vGPS, NTP, DCF, IRIG-BTCX0 (1.10 ⁻⁸) X0 (1.10 ⁻⁹)IRIG-B, NTP, ASCII multi-protocol, PPS, SMPTE-EBU, Configurable Pulses, DCF 24vGPS or NTPTCX0 (1.10 ⁻⁸)NTP, IRIGB, ASCII, impulsed	Synchronization inputsQuartzAvailable output time codesnumber of inputsGNSS, GPS, NTP, PTP/2, ASCII+TOP, FrequencyRubidium (1.10 ⁻¹²)IRIG-B, PTP, NTP, ASCII multi-protocol, PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF, E1/T1, PTP/23GNSS, GPS, NTP, IRIG-B, ASCII+TOP, FrequencyOCX0 (1.10 ⁻¹⁰) TCX0 (1.10 ⁻⁸)IRIG-B, PTP, NTP, ASCII multi-protocol, PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF, IRIG-B, NTP, ASCII multi-protocol, Res, OCK0 (1.10 ⁻¹⁰) TCX0 (1.10 ⁻⁸)3GNSS, GPS, NTP, IRIGB, ASCII+TOPOCX0 (1.10 ⁻¹⁰) TCX0 (1.10 ⁻⁸)IRIG-B, NTP, ASCII multi-protocol, PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF, impulsed DCF 24v3GPS, NTP, DCF, IRIG-BTCX0 (1.10 ⁻⁸) X0 (1.10 ⁻⁹)IRIG-B, NTP, ASCII multi-protocol, PPS, SMPTE-EBU, Configurable Pulses, DCF 24v1GPS or NTPTCX0 (1.10 ⁻⁹) X0 (1.10 ⁻⁹)NTP, IRIGB, ASCII, impulsed1	Synchronization inputsQuartzAvailable output time codesnumber of independent NTP portsGNSS, GPS, NTP, PTP-/2, ASCII+TOP, FrequencyRubidium (1.10 ¹²)IRIG-B, PTP, NTP, ASCII multi-protocol, EL/T1, PTP-/235GNSS, GPS, NTP, IRIG-B, ASCII+TOP, FrequencyOCX0 (1.10 ¹⁰)PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF, EL/T1, PTP-/2319 2"rackGNSS, GPS, NTP, IRIG-B, ASCII+TOP, FrequencyOCX0 (1.10 ¹⁰)PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF325GNSS, GPS, NTP, IRIGB, ASCII+TOPOCX0 (1.10 ¹⁰)PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF, impulsed DCF 24v825GPS, NTP, DCF, IRIG-BTCX0 (1.10 ¹⁰)IRIG-B, NTP, ASCII multi-protocol, impulsed DCF 24v12GPS or NTPTCX0 (1.10 ¹⁰)NTP, IRIGB, ASCII, impulsed11GPS or NTPTCX0 (1.10 ¹⁰)NTP, IRIGB, ASCII, impulsed11	Synchronization inputsQuartzAvailable output time codesnumber of independent of independent of independent NTP portson GNSS input +/- 10nsGNSS, GPS, NTP, PTPv2, ASCII+TOP, FrequencyRubidium (1.10 ⁻¹²)IRIG-B, PTP, NTP, ASCII multi-protocol, EL/T1, PTPv23510 nsGNSS, GPS, NTP, IRIG-B, ASCII+TOP, FrequencyOCX0 (1.10 ⁻¹⁰) TCX0 (1.10 ⁻¹⁰)IRIG-B, PTP, NTP, ASCII multi-protocol, EL/T1, PTPv2319 2"rack1 µsGNSS, GPS, NTP, IRIG-B, ASCII+TOP, FrequencyOCX0 (1.10 ⁻¹⁰) TCX0 (1.10 ⁻¹⁰)PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF3251 µsGNSS, GPS, NTP, IRIG-B, ASCII+TOPOCX0 (1.10 ⁻¹⁰) TCX0 (1.10 ⁻¹⁰)PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF8251 µsGNSS, GPS, NTP, IRIGB, ASCII+TOPOCX0 (1.10 ⁻¹⁰) TCX0 (1.10 ⁻¹⁰)IRIG-B, NTP, ASCII multi-protocol, impulsed DCF 24v8251 µsGPS, NTP, DCF, IRIG-BTCX0 (1.10 ⁻¹⁰) X0 (1.10 ⁻¹⁰)IRIG-B, NTP, ASCII multi-protocol, PPS, SMPTE-EBU, Configurable Pulses, DCF 24v121 µsGPS or NTPTCX0 (1.10 ⁻¹⁰) X0 (1.10 ⁻¹⁰)NTP, IRIGB, ASCII, impulsed111 µs	Synchronization inputsQuartzAvailable output time codesnumber of independent of independent NTP portson GNSS input +/- 10nsIP connectivityGNSS, GPS, NTP, PTP/2, ASCII+TOP, FrequencyRubidium (1.10 ⁻¹³)PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF, E1/11, PTPv23510 nsIPv4/IPv6GNSS, GPS, NTP, IRIG-B, ASCII+TOP, FrequencyOCX0 (1.10 ⁻¹⁹) TCX0 (1.10 ⁻¹⁹)PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF, E1/11, PTPv2319 2"rack1 µsIPv4/IPv6GNSS, GPS, NTP, IRIG-B, ASCII+TOP, FrequencyOCX0 (1.10 ⁻¹⁹) TCX0 (1.10 ⁻¹⁹)PIRIG-B, NTP, ASCII multi-protocol, PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF, 24v3251 µsIPv4/IPv6GNSS, GPS, NTP, IRIG-B, NTP, DCF, IRIG-B, TCX0 (1.10 ⁻¹⁹)IRIG-B, NTP, ASCII multi-protocol, PPS, 10MHz, SMPTE-EBU, Configurable Pulses, DCF, 24v3251 µsIPv4/IPv6GPS, NTP, DCF, IRIG-B, TCX0 (1.10 ⁻¹⁹)IRIG-B, NTP, ASCII multi-protocol, PPS, SMPTE-EBU, Configurable Pulses, DCF, 24v121 µsIPv4/IPv6GPS, NTP, DCF, IRIG-B, TCX0 (1.10 ⁻¹⁹)IRIG-B, NTP, ASCII multi-protocol, PPS, SMPTE-EBU, Configurable Pulses, DCF 24v111 µsIPv4/IPv6GPS or NTPTCX0 (1.10 ⁻¹⁹)NTP, IRIGB, ASCII, impulsed1111 µsIPv4/IPv6GPS or NTPTCX0 (1.10 ⁻¹⁹)NTP, IRIGB, ASCII, impulsed111 µsIPv4/IPv6	Synchronization inputsQuartzAvailable output time codesnumber of inputsof independent NTP portson GNSS input +/- 10nsIP connectivityPhot pugs systemGNSS, GPS, NTP, PTP-2; 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MAIN FEATURES

- Configuration and administration of time servers with a web interface for ease of use
- Stratum 1 function via GPS satellites.
- Up to 19 10/100Base-T independent ports.
- Graphic frontal panel display.
- IPv6 and IPv4 compatible.
- Secure web interface access (HTTPS).
- Https, SNMP v3.
- Private MIB.
- Supports Telnet, Syslog and FTP protocols.
- Maintain of Stratum 1 function if there is no primary reference.
- Nanosecond precision to UTC time.
- E-mail and SNMP trap alarms.
- Major alarms on static relays.
- System 100% operational in under 40 seconds from power-up.
- Event recording on SD card.



APPLICATIONS

TIME SERVERS

LEDI® NETWORK _____ French design

and manufacture

What is a time server?

It is a system that lets you synchronize a diverse array of equipment (computer systems, clocks, automatic products...) using a time reference to ensure that all of your peripheral devices are at the same time (the coordinated universal time).

What is the NTP?

The NTP (Network Time Protocol) is a network protocol used to accurately synchronize the local clocks with a network time server. The NTP network is an open hierarchical network as shown on the opposite pattern.

What is the PTP?

The PTP (Precision Time Protocol) is a network protocol used to precisely synchronize PTP slaves with PTP Grandmasters.

The PTP is highly recommended for transport, defense, industry and telecommunication applications.

Key fields where synchronization can directly affect network operations :

- Journal file time-stamping, verification and surveillance.
- · Recovering network transmission errors.
- Directory management.

- Access security and authentication.
- Planned operations (scripts...).
- Network messaging (Microsoft Exchange, Postfix, Lotus Notes...).
- Microsoft Active Directory.
- Log centralization (e.g. syslog).
- · Server supervision.
- Video surveillance systems.

OPTIONAL SERVICES*

- Presales support.
- Training and Commissioning Assistance.
- Technical support.
- Configuration of the product in factory, on-site or remotely.
- Maintenance contract.
- Installation.

*Information available from the GORGY TIME sales department.

CERTIFICATIONS

All GORGYTIME's products meet requirements under:

- EN 62368-1 (2020) EN 62311:2008 EN 50121-4:2016/A1:2019 EN 55032:2015/A11:2020
- EN 55035:2017/A11:2020 EN 61000-6-2:2005/AC:2005 RoHS.
- Our company is certified ISO 9001 and ISO 14001.

FRANCE MADEIN

GORGY TIME

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