GlobalTime Electronic Co., Ltd

Catalog

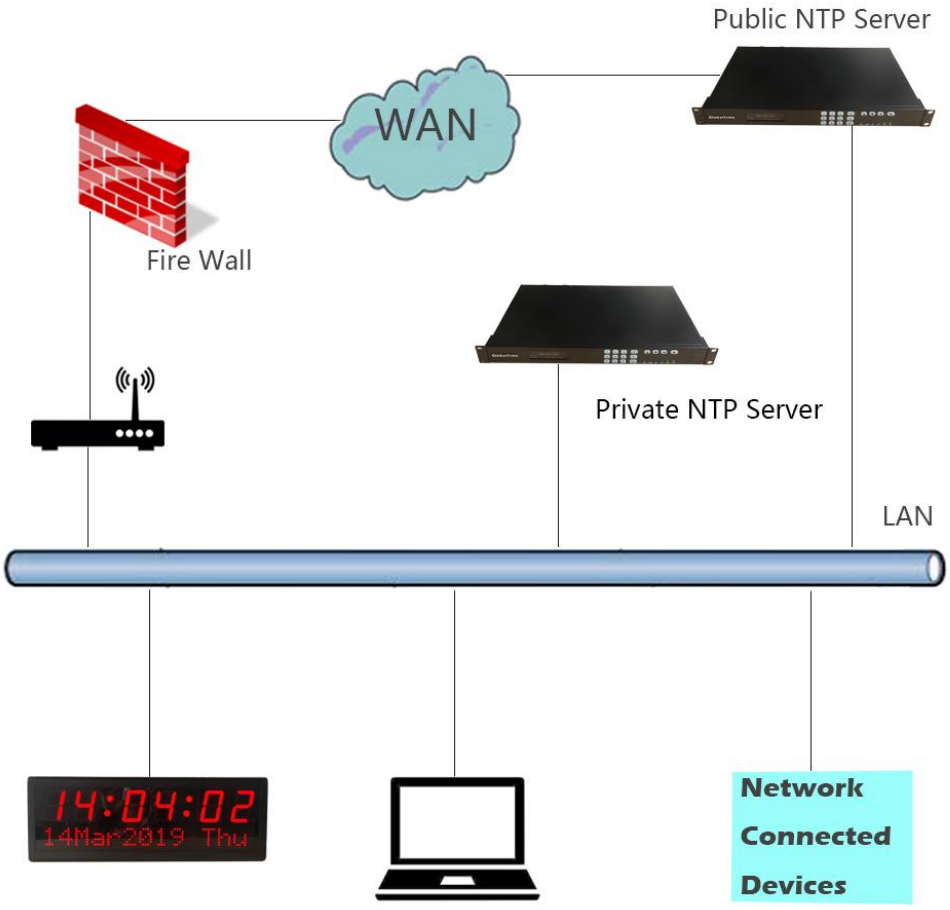

Table of Contents

1. GlobalTime Introduction

GlobalTime is founded in the year 2003 in Shanghai, China. It is a professional manufacturer of synchronized clock systems. We strive towards innovation and reliability. We feature a complete line of NTP servers (GPS servers) and synchronized Clocks. With outstanding R& D team, GlobalTime offers a wide range of NTP servers and NTP clocks, radio clocks, CDMA clocks. By providing accurate, real-time information, we keep schools, hospitals, airports, train stations, media houses, offices, financial institutes, military bases, public security bureaus and other governmental institutes informed and on the same stage.

Our clocks are widely used in more than 60 countries or regions over the world. Please contact us if you have any questions about our NTP products.

2. NTP Introduction

Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched, variable-latency data networks. NTP is the most popular time synchronization protocol in current use.

NTP is intended to synchronize all participating computers to within a few milliseconds of Coordinated Universal Time(UTC).[1]:3 It uses the intersection algorithm, a modified version of Marzullo's algorithm, to select accurate time servers and is designed to mitigate the effects of variable network latency. NTP can usually maintain time to within tens of milliseconds over the public Internet, and can achieve better than one millisecond accuracy in local area networks under ideal conditions. Asymmetric routes and network congestion can cause errors of 100 ms or more.

3. PoE Introduction

Power over Ethernet or PoE describes any of several standard or ad-hoc systems which pass electric power along with data on twisted pair Ethernet cabling. This allows a single cable to provide both data connection and electric power to devices such as NTP clocks, wireless access points, IP cameras, and VoIP phones.

There are several common techniques for transmitting power over Ethernet cabling. Two of them have been standardized by IEEE 802.3 since 2003.

4. NTP Server

GTT100

GTT200

GTT400

4.1. Features

· Stratum 1 operation via GPS/ BeiDou/GLONASS satellites
· One two four standard GbE ports, all with patented NTP hardware timestamping
· Security-hardened NTP Reflector™ with firewall protection
· Web-based management with high-security cipher suite
· Exceptional time accuracy to UTC
· Extended environmental specifications

· IPv4 on all ports
· Rubidium atomic clock or OCXO oscillator upgrades
· Single power supply or dual power supply option
· Can be set as a slave time server to synchronize with host time server
· One 10M 100M 1000M adaptive network interface
· NTP Reflector option: 20000 NTP client mode three requests per second
· TOD/1PPS/10MHz out
· MTBF: 90000 Hours

4.2. Applications

· Synchronizes hundreds of thousands of NTP clients
· Security-hardened for peace-of-mind time service operations
· Multiple GbE NTP ports for easy network configuration and adaptation
· Best-in-class time accuracy for improved log file timestamp precision and usability
· Very reliable and easy-to-use network time appliance for modern networks and business operations

4.3. Network Protocols

RFC 1119 1305 NTP v2/v3/v4
RFC 1769 2030 SNTP v2/v3/v4
TIME
DAYTIME
SNMP v1/v2/v3
SSH
HTTPS
FTP

4.4. Mechanical/Environmental

· Size: 44cm x 28.6cm x 4.5cm, 1U rack mount, including BNCs
· Power: 10W, 110-230V AC
· Operating temperature: -10℃~65℃
· Storage temperature: -40℃~85℃
· Operational humidity: 0~90%, non-condensing, IEC 60068-2-78Cb, IEC 60068-2-30Db

4.5. Comparison Chart of Different Models

Model		GTT100	GTT200	GTT400
Time Source		GPS/ GLONASS	GPS/ GLONASS	GPS/ GLONASS
No. of 10M /100M Adaptive Interface		1	2	4
Built- in Clock		Rubidium/ oscillator	Rubidium/ oscillator	Rubidium/ oscillator
Terminal Support		60000	60000	60000
Keyboard		Yes	Yes	Yes
Protocol Support	SNMP	Yes	Yes	Yes
	HTTPS	Yes	Yes	Yes
	TIME	Yes	Yes	Yes
	DAYTIME	Yes	Yes	Yes
Options	TOD 1PPS 10MHz	Yes	Yes	Yes
	IRG-B	Yes	Yes	Yes
Heartheat Detection		No	Yes	Yes

5. Digital NTP Clocks

5.1. 4” Digital PoE Clocks- GTD368 Series

		
GTD368-4SR	GTD368-6SR3	GTD368-6SR4
		
GTD368-4SW	GTD368-6SW3	GTD368-6SW4
		
GTD368-4SB	GTD368-6SB3	GTD368-6SB4
		
GTD368-4SG	GTD368-6SG3	GTD368-6SG4

5.1.1. Specifications

Accuracy		+/- 20 milliseconds	
Operating Temperature		-10°C to 60°C	
Operational Humidity		90% maximum, non-condensing	
Viewing Distance		50 meters	
Mounting Options		Surface, Double Sided	
Power Supply		IEEE 802.3 af (PoE) Compliant, less than 13 Watts	
		DC	
Network Interface		10/100 M, RJ 45	
Display Face		4/ 6-digit, 7 segment LEDs	
Cabinets		High strength plastic in black Metal case in black is optional for 6-digit clocks.	
Color		Red, Green, Blue, White	
MTBF		50000 hours	
Warranty		One year.	
4" 4- digit, Single-sided		4" 4- digit, Double-sided	
Dimensions	30.2cm*15.7cm*5.7cm	Dimensions	30.2cm*15.7cm*8cm
Weight	0.7kg	Weight	1.2kg
4" 6- digit, Single-sided		4" 6- digit, Double-sided	
Dimensions	43cm*15.7cm*5.7cm	Dimensions	43cm*15.7cm*8cm
Weight	0.9kg	Weight	1.5kg

5.1.2. Features

· Time is automatically set by Simple Network Time Protocol(SNTP)- no master clock or serial connection required.
· Uses PoE (Power over Ethernet) for easy installation and operation
· Static IP or DHCP addressing
· Display time in 12 or 24 hours format
· Supports any time zone.
· Supports countdown function
· Automatic daylight saving time
· Environmentally friendly: the light intensity of the digits is adjustable by the software
· Provides NTP server configuration.
· If connection to NTP server is lost the clocks will continue to run on the built-in time base. When the connection is restored it will synchronize automatically.
· Can be single sided (has one display screen) or double sided (has two display screens)
· Mounting options: pendant, cantilever, surface
· Alarm Function is optional
· Temperature & Humidity display is optional

5.2. 2.3” Digital PoE Clock with Date/ Text Display- GTD366

5.2.1. Specifications

· Case: Metal in Black or White
· Size: 43cm*15.5cm*6.3cm, Weight: 2kg
· Display: 2.3” digit (56mm character), 8*8 dot matrix(38mm high)
· Viewing Distance: 50 feet - 15 meters
· Mounting Options: pendant, cantilever, surface

5.2.2. Features

· Can display date or text
  - Maximum static text display: 13 characters
  - If text is over 13 characters, choose to roll, or alternate

Time is automatically set by Simple Network Time Protocol(SNTP)- no master clock or serial connection required.
· Uses PoE (Power over Ethernet) for easy installation and operation
· Static IP or DHCP addressing
· Display time in 12 or 24 hours format
· Supports any time zone.
· Supports countdown function
· Automatic daylight saving time
· Environmentally friendly: the light intensity of the digits is adjustable by the software
· Provides NTP server configuration.
· If connection to NTP server is lost the clocks will continue to run on the built-in time base. When the connection is restored it will synchronize automatically.
· Can be single sided (has one display screen) or double sided (has two display screens)
· Mounting options: pendant, cantilever, surface
· Alarm Function is optional
· Temperature & Humidity display is optional

5.3. 2.3” Rack-mounted NTP Clock- GTD362

5.3.1. Specifications

- Case: Metal in Black
- Size: 44cm*18cm*8.8cm
- Weight: 2.78kg
- LED Color: Red
- Mounting Options: 2U Rack-mounted
- Display: 2.3” digit
- Viewing Distance: 50 feet - 15 meters
- Power Supply: 110-240V AC/ 0.7A
- Operating Temperature: -10℃ to 70℃
- Operational Humidity: 90% maximum, non-condensing

5.3.2. Features

· Time is automatically set by Simple Network Time Protocol(SNTP)- no master clock or serial connection required.
· Static IP or DHCP addressing
· Display time in 12 or 24 hours format
· Supports any time zone.
· Supports countdown function
· Automatic daylight saving time
· Environmentally friendly: the light intensity of the digits is adjustable by the software
· Provides NTP server configuration.
· If connection to NTP server is lost the clocks will continue to run on the built-in time base. When the connection is restored it will synchronize automatically.

5.4. 4” Digital Wi-Fi Clocks- GTD369 Series

		
GTD369-4SR	GTD369-6SR3	GTD369-6SR4
		
GTD369-4SW	GTD369-6SW3	GTD369-6SW4
		
GTD369-4SB	GTD369-6SB3	GTD369-6SB4
		
GTD369-4SG	GTD369-6SG3	GTD369-6SG4

5.4.1. Specifications

4” 4- digit, Single- sided		4” 4- digit, Double- sided	
Dimensions	30.2cm*15.7cm*5.7cm	Dimensions	30.2cm*15.7cm*8cm
Weight	0.7kgs	Weight	1.2kgs
4” 6- digit, Single- sided		4” 6- digit, Double- sided	
Dimensions	43cm*15.7cm*5.7cm	Dimensions	43cm*15.7cm*8cm
Weight	0.9kgs	Weight	1.5kgs

General	
Design:	Single- sided and double- sided
Accuracy:	± 40 millisecond
Viewing Distance:	50 meters
MTBF:	50000 hours
LED Color:	Red, white, blue, green
Synchronization:	NTP
Wi-Fi frequency:	2.4 GHz
Supports:	IEEE 802.11 b/g/n
Encryption:	WEP/ WPA-PSK/ WPA2-PSK
Receiving sensitivity	802.11b:-86d8m(11Mbps); 802.11g:-71d8m(54Mbps)
Certifications:	CE, FCC, RoHS, ISO9001
Network	
Protocols supported:	NTP, HTTP
NTP protocol modes:	C/S mode
IP address assignment:	Static IP or DHCP
Transport protocol:	TCP/ IP
Device management:	Web-based (requires web browser) or software
Power supply	
Power:	12V/1A for red ,18V/1A for white/ blue/ green
Environmental	
Operating temperature:	-5℃ to 55℃
Operating humidity:	10%-95%, non-condensing
Housing	
Cabinet:	High strength plastic in black, metal case is optional for 6- digit clocks.

5.4.2. Features

· Time is automatically set by Simple Network Time Protocol(SNTP)- no master clock or serial connection required.
· Supports Wi-Fi- no need of network cable distribution.
· Display time in 12 or 24 hours format
· Supports any time zone.
· Supports countdown function
· Automatic Daylight Saving Time
· Environmentally friendly: the light intensity of the digits is adjustable by the software
· Provides NTP server configuration.
· If connection to NTP server is lost the clocks will continue to run on the built-in time base. When the connection is restored it will synchronize automatically.
· Can be single sided (has one display screen) or double sided (has two display screens)
· Mounting options: pendant, cantilever, surface
· Alarm Function is optional
· Temperature & Humidity display is optional

6. Analog NTP Clocks

6.1. Analog PoE Clocks- GTD360

6.1.1 Specifications

Picture		
Model	GTD360-SA	GTD360-BP
Dimensions	Diameter: 38cm, Height: 5.1cm	Diameter: 34.8cm, Height: 7cm
Weight	1.3kg	0.62kg
Case	Aluminum in Silvery	Plastic in Black
Accuracy	+/- approximately 1 second	
Operating Temperature	-10℃ to 70℃	
Operational Humidity	90% maximum, non-condensing	
Mounting Option	Surface or Double- sided	
Certification	CE, FCC, RoHS	

6.1.2. Features

· Accuracy: +/- 0.5 seconds
· Time is automatically set by Simple Network Time Protocol(SNTP)- no master clock or serial connection required.
· Uses PoE (Power over Ethernet) for easy installation and operation
· Static IP or DHCP addressing
· Supports any time zone.
· Automatic daylight saving time
· Provides NTP server configuration.
· If connection to NTP server is lost the clocks will continue to run on the built-in time base. When the connection is restored it will synchronize automatically.
· Can be single sided (has one clock face) or double sided (has two clock faces)
· OEM, ODM, Customized

6.2. Analog Wi-Fi Clock- GTD361

6.2.1 Specifications

Picture		
Model	GTD361-SA	GTD361-BP
Dimensions	Diameter: 38cm, Height: 5.1cm	Diameter: 34.8cm, Height: 7cm
Weight	1.3kg	0.62kg
Case	Aluminum in Silvery	Plastic in Black
Mounting Option	Surface	

6.2.2. Technical Data

Design:	Single- sided for surface wall mounting
MTBF:	50000 hours
Accuracy:	+/- 1 second
Synchronization:	NTP
Wi-Fi frequency:	2.4GHz
Supports:	IEEE802.11 b/g/n
Encryption:	WEP/ WPA-PSK/ WPA2-PSK
Receiving sensitivity	802.11b:-86d8m(11Mbps); 802.11g:-71d8m(54Mbps)
Certifications:	CE, FCC, RoHS, ISO9001
Network	
Protocols supported:	NTP, HTTP, FTP
NTP protocol modes:	C/S mode
IP address assignment:	DHCP
Transport protocol:	TCP/ IP
Device management:	Web- based (requires web browser)
Power supply	
Battery:	2 x 1.5V size LR6
Average life of battery	12 months
Environmental	
Operating temperature:	-5°C to 55°C
Operating humidity:	10%-95%, non-condensing

6.2.3. Features

· Time is automatically set by Simple Network Time Protocol(SNTP)- no master clock or serial connection required.
· Supports Wi-Fi- no need of network cable distribution.
· Supports any time zone.
· Automatic Daylight Saving Time
· Provides NTP server configuration.
· If connection to NTP server is lost the clocks will continue to run on the built-in time base. When the connection is restored it will synchronize automatically.

We reserve the right to make changes at any time.

GlobalTime Electonic Co., Ltd
Add: Floor 7, Building 4, No. 651, Wanfang Road, Minhang District, Shanghai, China.
Tel: +86-21 3653 1186 Fax: +86-21 3653 1185
Web: www.ntpclock.com
Email: contact@ntpclock.com