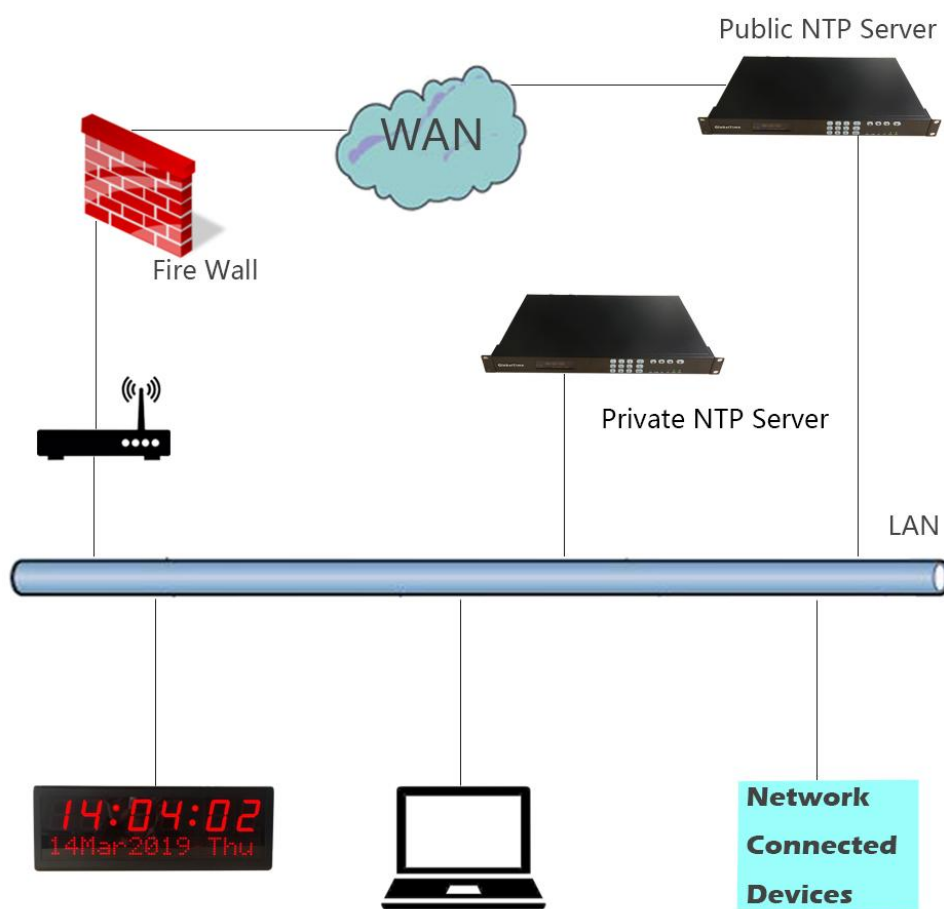


## Catalog



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## 1. GlobalTime Introduction

GlobalTime was 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). 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. The Power over Ethernet Advantages

PoE is a network standard based on IEEE 802.3af that delivers DC power and data to Ethernet connected devices. PoE is fully compatible with powered and non-powered 10/100BaseT Ethernet devices.

PoE clocks utilize Power over Ethernet (PoE), the same technology that powers IP phones. The PoE clock receives its power and data from a standard CAT5 patch cable via a PoE injector or switch. By simply using a Windows-based application, the user can view and/or change existing configuration of the entire system. The clock will receive its time from a SNTP time server for accurate timekeeping, thus eliminating the need of a master clock.

### 4. NTP Server



GTT100 ( 1 LAN Port)



GTT200 ( 2 LAN Ports)



GTT400 ( 4 LAN Ports)

#### 4.1. Difference of GTT100, GTT200, GTT400

The difference of the three models is at the quantity of LAN Ports, and only with more than 1 LAN Port, bounding is available. So GTT100 doesn' t support bounding, GTT200 & GTT400 support bounding.

## 4.2. 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/two/ four 10M/ 100M/ 1000M adaptive network interface
- NTP Reflector option: 20000 NTP client mode three requests per second
- TOD/1PPS/10MHz out
- MTBF: 90000 Hours

## 5. Digital NTP Clocks

### 5.1. 4" Digital NTP PoE Clock GTD368-Series

#### Features

- Available with 4" digits, 4 digit display or 6 digit display

## Synchronized Time Systems

- Red display standard; Optional green, yellow, amber displays
- 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
- 12 or 24 hour display
- Automatic Daylight Saving Time change (if applicable)
- Adjustable brightness (brilliant, bright, normal, dim, off)
- Capability to receive realtime countdown command
- 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.
- The clock features time loss notification by having a light on on the right lower corner
- Can be single sided ( has one display) or double sided ( has two displays)



Single-sided



Double-sided



Double-sided



Ceiling Mounting



Wall Mounting

### Optional

Capable of interface with:

- Temperature sensor or humidity sensor

- Built-in bell relay

## 5.2. 2.3" Digital NTP PoE Clock with Date/Text Display-GTD366



Black Metal Case

Back Side

White Metal Case Grey

Stainless Steel Case (SS304

Material)

### Features

- Available with 2.3" digits, can display calendar or English text ( less than 64 bytes)
- Red display standard
- 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
- 12 or 24 hour display
- Automatic Daylight Saving Time change (if applicable)
- Adjustable brightness (brilliant, bright, normal, dim, off)
- Capability to receive realtime countdown command

- 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.
- The clock features time loss notification by having a light on on the right lower corner

### Capable of interface with:

- Temperature and/ or humidity sensor
- Bell Relay

### 5.3. 2.3" Rack-mounted NTP Clock- GTD362



### Specifications

- Case: Metal in Black
- Size: 44cm\*18cm\*8.8cm
- Weight: 2.78kg
- Display: 2.3" digit
- LED Color: Red
- Mounting Options: 2U Rack-mounted
- Viewing Distance: 50 feet - 15 meters



- Power Supply: 110-240V AC/ 0.7A
- Operating Temperature: -10°C to 70°C
- Operational Humidity: 90% maximum, non-condensing

### 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. Digital NTP Wi-Fi Clocks- GTD369 Series

### Features

- Available with 4" digits, 4 digit display or 6 digit display
- Red display standard; Optional green, yellow, amber displays
- Time is automatically set by Simple Network Time Protocol(SNTP)- no master clock or serial connection required

## Synchronized Time Systems

- Supports Wi-Fi- **no need of network cable distribution.**
- Static IP or DHCP addressing
- 12 or 24 hour display
- Automatic Daylight Saving Time change (if applicable)
- Adjustable brightness (brilliant, bright, normal, dim, off)
- Capability to receive realtime countdown command
- 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.
- The clock features time loss notification by having a light on on the right lower corner
- Can be single sided ( has one display) or double sided ( has two displays)



Single-sided



Double-sided



Ceiling Mounting



Wall Mounting



Capable of interface with:

- Temperature and/ or humidity sensor
- Bell Relay

## 6. Analog NTP Clocks

### 6.1. Analog NTP PoE Clocks- GTD360 Series

#### Specifications

Picture		
Model	GTD360-SA	GTD360-BP
Dimensions	Diameter: 38cm, Height: 5.1cm	Diameter: 34.8cm, Height: 7cm
Weight	1.1kg	0.8kg
Case	Aluminum in Silvery	Plastic in Black
Accuracy	+/- approximately 1 second	
Operating Temperature	-10°C to 70°C	
Operational Humidity	90% maximum, non-condensing	
Mounting Option	Surface	
Certification	CE, FCC, RoHS	



#### 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

- Automatic Daylight Saving Time change (if applicable)- No master clock required

## 6.2. Analog NTP Wi-Fi Clocks- GTD361 Series

### Specifications

Picture		
Model	GTD361-SA	GTD361-BP
Dimensions	Diameter: 38cm, Height: 5.1cm	Diameter: 34.8cm, Height: 7cm
Weight	1.1kg	0.8kg
Case	Aluminum in Silvery	Plastic in Black
Mounting Option	Surface	

### 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:-86dBm(11Mbps); 802.11g:-71dBm(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

## 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.

## 7. GPS Clocks

### Appearance



2.3" digit, with date display

4" Digit

2.3" digit, Rack-mounted

### Features

- Accuracy: +/- 20 milliseconds
- Supports GPS, GLONASS, Galileo, BD. The system automatically selects and synchronizes with the satellites. If synchronization fails, a dot will light up in the bottom right corner of the clock within 2 minutes.
- Can set time zone and daylight saving time.
- Adjustable screen brightness.

## Synchronized Time Systems

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- Supports 24-hour or 12-hour display format. When in 12-hour format, a dot will appear in the top left corner of the display to indicate PM.
- Product certified with CCC/FCC/CE/ISO9001.

Additional optional features:

Temperature/humidity sensor can be added to alternate between displaying time and temperature or humidity.

We reserve the right to make changes at any time.