长沙天穹电子科技有限公司

Changsha Tianqiong Electronic Technology Co., Ltd

Synchronized Clock Product Catalog

Changsha Tianqiong Electronic Technology Co., Ltd.

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INCLUDED SERIES

- Hospitals, Schools & Factories Series
- Pharmaceutical Factory Series
- Professional Series & Analog Clock Series
- Interval Test & Portable Metering Series
- Time Server Series & Professional Software

Company Profile

About Tianqiong Electronics

A professional enterprise in R&D, production, and service of time and frequency products. Located in Changsha National High-tech Zone, we are a key enterprise in Hunan Aerospace Application with 1000㎡ facilities and a team of 30+ professionals.

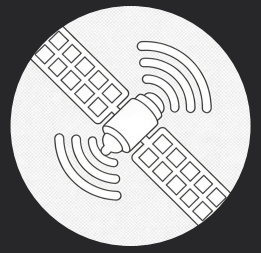
Core Qualifications & Honors

- National High-tech Enterprise (2018, 2021)
- Metrology Assurance Unit (MIIT & Hunan Institute)
- Pioneer in BDS timing for college entrance exams
- Multiple invention patents and "Shutai" trademark





Synchronization Principle



Satellite Navigation (BDS/GPS)

- Obtains standard time via satellite signals with global coverage.
- Requires only a few minutes of daily signal reception for calibration.
- Ideal for outdoor, mountains, seas, and remote islands.



4G Base Station

- Acquires time by searching for 4G mobile network base stations.
- Reliable in urban areas and indoors where 4G signals are strong.
- Suitable for basements and densely populated regions.



NTP Network Time Service

- Retrieves standard time via Ethernet or Wi-Fi connection.
- Perfect for locations with stable network infrastructure.
- Calibration is possible whenever internet access is available.

Product Selection Guide

Institutional Series
Hospitals, Schools & Factories

Pharmaceutical Series
Cleanroom & Lab Solutions

Professional Series
High Precision Systems

Analog Clock Series
Classic & Modern Displays

Test & Metering
Interval Test & Portable

Time Server Series
Network Time Synchronization

Professional Software
Management & Control Suites

Hospitals, Schools & Factories Series (1)



DH2248

220×480×50mm

Display: 3+1 inch



DH2248M (Frosted)

220×480×50mm

Display: 3+1 inch



DH2248T (Temp & Humidity)

220×480×50mm

Display: 3+0.56 inch



DH1330

130×300×20mm

Display: 1.5+1 inch



DH1336

130×360×50mm

Display: 3+0.56 inch

Hospitals, Schools & Factories Series (2)



DH2255 / DB2255

- Dimension: 220×550×50mm
- Display: 3+1.5 inch



DH2565 / DB2565

- Dimension: 250×650×50mm
- Display: 4+1.8 inch



DH3555 Large Display

- Dimension: 350×550×50mm
- Display: 3+1.5 inch
- Prominent visibility for public areas

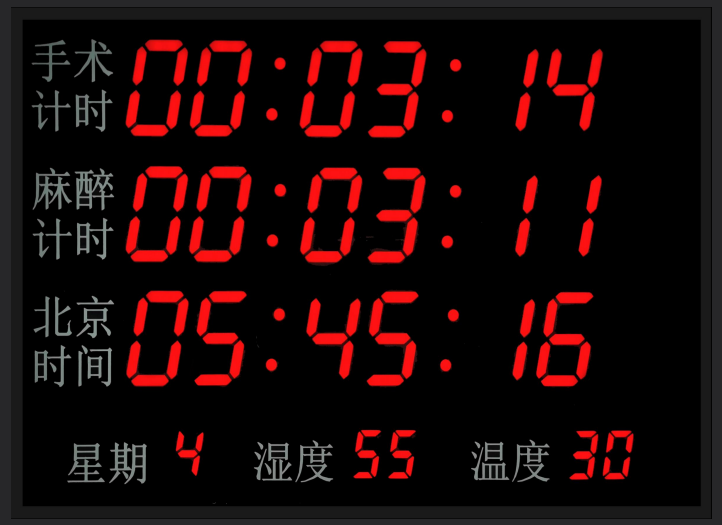


DH34-NTP/NB Series



DH36-NTP/NB Series

Hospitals, Schools & Factories Series (3)



DH4060T (Surgical Clock)

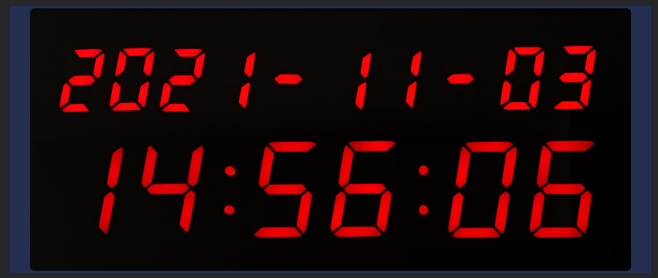
- Dimension: 400×600×50mm | Display: 3+1.5 inch
- Designed for ORs, displaying surgical, anesthesia, and standard time simultaneously.



DH38112 (Large-Format Display)

- Dimension: 380×1120×50mm | Display: 5+3+2.3 inch
- Ideal for high-visibility areas such as large halls or production facilities.

Pharmaceutical Factory Series



QR2040 (Flush Mount)

200×400×40mm | 2.3+1.5 inch



DH2040 (Surface Mount)

180×380×38mm | 2.3+1.5 inch



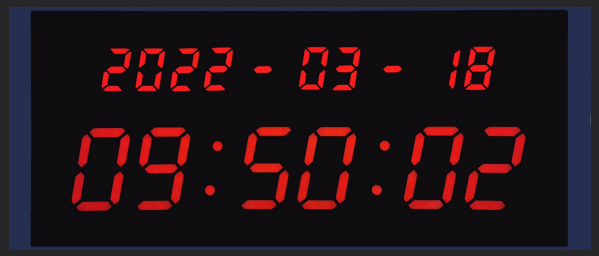
QR2248-1 (Flush Mount)

240×520×40mm | 3+1 inch



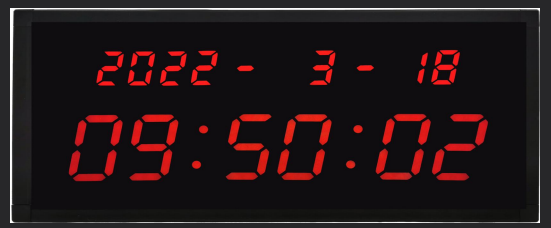
DH2248-1 (Surface Mount)

212×480×38mm | 3+1 inch



QR2248-2 (Flush Mount)

240×520×40mm | 3+1.5 inch



DH2248-2 (Surface Mount)

212×480×38mm | 3+1.5 inch

Professional Series



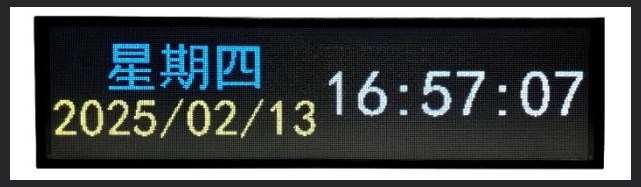
Astronomical Clock (TQ3555TW)

For astronomical and specific time reference. Ideal for specialized timing needs in critical environments.



Combat Clock (TQ3555ZZ)

Designed for military and command applications, ensuring reliable timekeeping under harsh conditions.



DZ1867 (LED Matrix)

Full-color display with dimensions 182×676×50mm and a resolution of 344*172 pixels.



TQ4717C (LCD)

High-resolution LCD measuring 476×171×26mm with a crisp 2560*800 resolution.

Analog Clock Series



R16W-E (Standard)

Diameter: 40CM
Material: Aluminum Alloy



R16W-E (Silver)

Diameter: 40CM
Material: Aluminum Alloy



R16W-E (BDS Module)

Diameter: 40CM, Alloy
Feature: BDS Timing Module

Interval Test & Portable Metering Series



DH1262CS - Precision Interval Timer

Dimensions:120 × 620 × 35 mm

Display:3.0 inch High-Contrast Screen

Description: A long, slim display optimized for clear visibility of interval timing data and metering readings.



DH2243 - Compact Field Unit

Specs: 220×430×45mm | 2.3 inch Display

Purpose: Designed for field testing and on-site calibration tasks requiring portability.



JL2048 - Specialized Tester

Focus: A highly specialized device engineered exclusively for advanced interval testing applications.

Time Server Series



Network Time Backbone

Acts as the primary reference for network-wide time synchronization, providing a unified and precise time standard for all connected infrastructure.



High-Precision Protocols

Receives accurate time from GPS/BDS satellites and distributes it via NTP/SNTP protocols, ensuring microsecond-level accuracy across devices.



Enterprise-Grade Solution

Ideal for data centers, financial institutions, and large enterprises requiring strict, secure, and efficient time synchronization across systems.

NTP TIME SERVER



NTP Time Server TQ5519

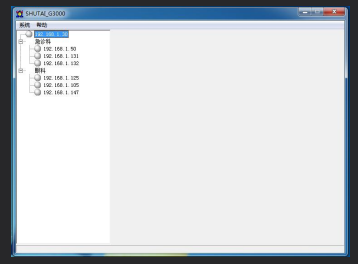
Receives standard time from 4G base station / BDS / GPS satellite signals.
Synchronization accuracy for user terminals: <50ms (typical).
User capacity: >10,000; NTP requests: 2,500 times/second.
Supports protocols: NTPV1, V2, V3 (RFC1119&1305); SNTP (RFC2030,1321); DHCP, HTTP, IPV4.
LCD status display, 1U rack-mount structure.



NTP Time Server TQ5209

Receives standard time from BDS / GPS satellite signals. Equipped with an OCXO to maintain high accuracy during signal loss.
Synchronization accuracy: <10ms (typical).
User capacity: >10,000; NTP requests: 25,000 times/second.
Output interface: 2-8 Ethernet ports, 1x RS232, 1x RS485.
24-hour holdover accuracy with OCXO: <50μs.

Professional Software & Security Isolation Device





Time Monitoring Software G3000

A comprehensive software solution for managing, monitoring, and configuring your entire network of synchronized clocks. It provides real-time status updates, remote control, and detailed logging for effective time system management.



NV-FS100 Security Isolation Device

A specialized hardware device that provides physical isolation between networks while maintaining accurate time synchronization, ensuring security and timing integrity in critical environments.

Solutions - Chest Pain Center

Every Second Counts

In emergency medicine, precise timing is essential. Our solution ensures that all critical devices are perfectly aligned to a single, accurate time source, creating a reliable timeline for care.

Full Device Synchronization

Seamlessly integrates with ECG machines, defibrillators, and patient monitors. Every piece of equipment operates on the exact same time, eliminating discrepancies in data.

Continuous Monitoring

Integrates with hospital IT systems and provides real-time oversight to guarantee time accuracy. This enables faster diagnosis and treatment, ultimately saving lives.

Solutions - Wireless Master-Slave System

Shutai Wireless Master-Slave Clock System

Flexible & Cost-Effective

Eliminates complex wiring, making installation fast and easy. Ideal for retrofitted buildings or areas where cabling is impractical.

Reliable Synchronization

A central Master Clock receives the standard time signal, ensuring all wireless Slave Clocks maintain perfect, unified time accuracy.

Highly Scalable

Easily expand the system to include additional clocks as your facility grows, supporting any size of premises.

Solutions - Time Monitoring System

Shutai G3000 Time Monitoring System



Real-time Visibility

Provides real-time status updates for all clocks and servers. Administrators can quickly identify anomalies and resolve issues, ensuring peak operational efficiency.



Centralized Control

Offers powerful remote configuration and firmware update capabilities. Manage your entire time synchronization infrastructure from a single, intuitive platform.



Performance Reporting

Generates detailed analytics on time accuracy and system performance. Ensures your network maintains the highest standards of reliability.

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