北斗邦泰
BDSTAR TIME

T600-BDRBP NTP TIME SERVER

A High-Security TimeBenchmark for Government Cloud, Finance, Power, DataCenters.

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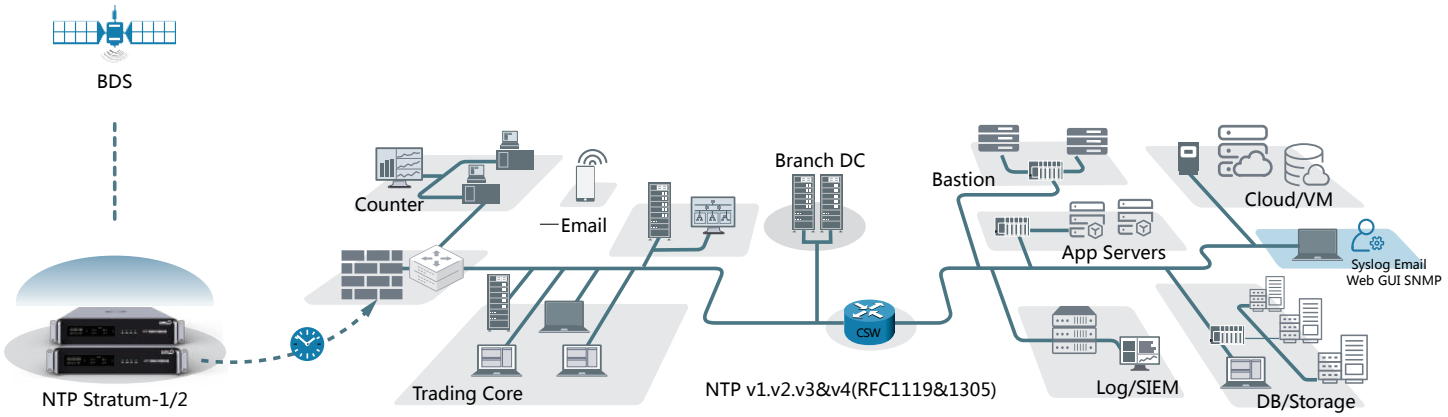
NTP TIME SERVER

T600-BDRBP



Key Features

+Ultra-high-bandwidth NTP server
+GNSS-referenced Class 1 time server suitable for critical struture
+Multi-source,time-keeping,redundant,and link-backup capabilities enhance system resilience
+Standard configuration:6×100/1000BASE-T,RJ45.+2×100/1000 BASE-T,SFP.
+Scalable to 25G/40G/100G/200G speeds.
+Can be connected to another NTP server to form a Level2 clock
+Built-in high-precision rubidium atomic clock with annual-deviation less than 1millisecond
+Supports SSH,SSL,SCP,SNMP,CustomMIB,HTTPS,Telnet
+Multi-layered security features including encryption,certificates, auditing,firewalls,and firmware updates.
+Fully compatible with IPv4 and IPv6 network environments
+Advanced Anti-jammingand spoofing detection algorithms enhance spoofing resistence.
+Accuracy relative to UTC time reaches the nanosecond level
+MTBF>100,000 hours
+Secure and efficient web-based user interface
+Architectural design compaible with single-power-supply redundant, or DC power supply configurations
+Industrial-grade design to meet requirements for long-term stable operation and field deployment

Main functions

+ Provides a unified time reference for servers, switches,work stations, and terminal devices
+ Web-based management interface supporting parameter configuration , monitoring, alerts, and log management
+Tiered permissions, audit trails for critical operations, and log traceability to meet compliance and internal controlre quirements
+ Security configurations including HTTPS/certificates, passwords, firewalls, and alarm integration
+ Heartbeat detection and same-IP mutual backup for rapid primary-to-standby switching and business continuity
+ Supports bonding to enhance link reliability and network availability + Supports remote upgrades, remote maintenance, and policy deployment to reduce operational costs
+ SNMP and custom MIB integration with network manage systems for batch monitoring and alarm aggregation

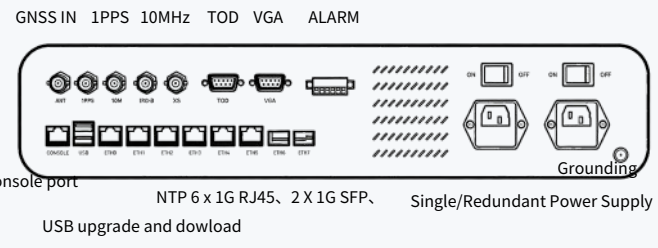
Overview

The T600-BDRBP NTP network time server supports the NTP/SNTP network sync-hronization protocol and provides high-precision, large-capacity, and high-security network timing services for critical infrastructure. The equipment adopts a industrial motherboard platform, adapts to the linux operating system, supports isolated deployment of business network and management network, and independent configuration and routing strategies of multiple network ports. It also supports link redundancy and automatic failover (such as bonding Active-Backup) and dual-machine hot standby/heartbeat detection to ensure continuous and reliable timing services. The system consists of a GNSS receiving unit, a local clock taming and punctuation unit (rubidium atomic clock), a network timing and interface output module, a unified operation and maintenance man agement unit, and a power supply/alarm module. It supports concurrent reception o f multiple constellations (GPS/QZSS , GLONASS, Beidou, GALILEO, etc.), and has a built-in high-performance rubidium atomic clock to achieve Holdover punctuali ty after lock loss and continuously output a stable time reference. The system has anti-interference/anti-spoofing capabilities, supports anomaly detection and alarm, multi-source comparison, timing quality assessment and lock-out strategy. When the reference source is abnormal, it automatically enters timekeeping and locks smoothly after recovery.

For security and operations, the device supports HTTPS/certificates, multi-level access control, audit logs, alerts, firewalls, and strong password policies. It offers a secure, unified web interface for configuration, monitoring, alerting, and log management, and integrates with upper-level NMS via SNMP or custom MIBs for remote upgrades and batch monitoring.It provides time/frequency outputs including TOD, 10 MHz, and 1PPS, along with USB-based firmware updates, log export, and dry contact alarms.It is suitable for applications in government, defense, finance, power, telecommunications, data centers, and industrial automation.

Front view

Back view



Technical Specifications

			sine wave
	Output impedance		50Ω
			⩾ 9dBm
			⩽ - 40dBc
			⩽ 3E - 12
		@1Hz	⩽ - 95dBc
		@10Hz	⩽ - 130dBc
		@100Hz	⩽ - 145dBc
		@1kHz	⩽ - 155dBc
		@10kHz	⩽ - 160dBc
			⩽ 1E - 12
			⩽ 500ns

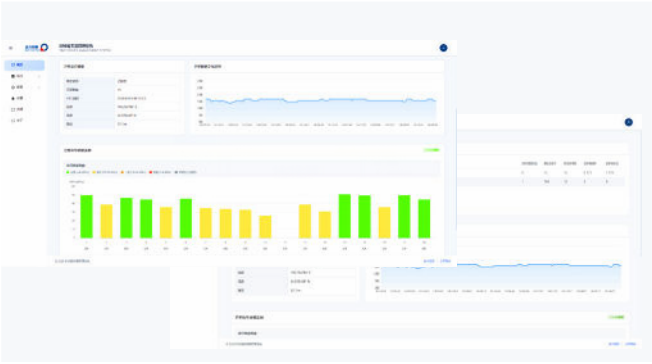
		TTL
		100ms
		＜ 5ns
		50Ω
		＜ 20ns

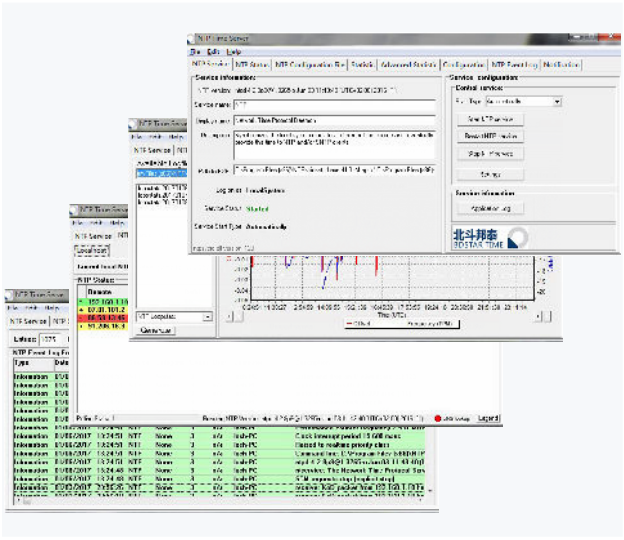
Physical and Environmental Parameters

Mark	Description
-Q	Domestic Kylin Operating System
-B	IRIG-B DC input
-B3	BDS/B3 Military code input
-A50-200	Standard 50-meter, support 50-200-meter antenna cables
-CA23-RP	Antenna surge arrester

Software Performance

Time Server Management System





Provide window system NTP protocol time adjustment software, run in service mode, and provide operating status monitoring, control, and conf iguration interfaces.