

SyncServer Model Comparison

Features	S80	S600	S650*	
Time Protocols	NTP server	■	■	■
	NTP peering/client		■	■
	NTP activity monitoring and charting		■	■
	NTP requests/second capacity with hardware time stamping	500	10,000	10,000
	Optional NTP requests/second capacity (NTP Reflector)**	1,000	360,000	360,000
	PTP output or input (software licenses)		○	○
Time References (Inputs)	GNSS, 72-channel receiver, GPS constellation support	■	■	■
	Galileo/GLONASS/BeiDou/QZSS/SBAS constellation support (software license)	■****	○	○
	NTP peering		■	■
	IRIG B AM input (IRIG A/B/C37/E/HaveQuick AM/DCLS input***)			■
	10 MHz input (1 MHz and 5 MHz input***)			■
	1 PPS input (10MPPS/T1/E1 input***)			■
Standard Network Security Features	HTTPS/SSL/SSH/Telnet (with disable function)	SSH	■	■
	SNMP v2/v3 MIB II (with disable function)	■	■	■
	IPV4/IPV6/DHCP	■	■	■
	MD5 for NTP		■	■
	Access control lists (one per port)		■	■
	CPU denial of service (DoS) protection through bandwidth limiting		■	■
Security Protocol License Option	NTP Reflector/Firewall/multi-port with 360,000 NTP requests/second**		○	○
	DoS detection, notification, and protection**		○	○
	RADIUS, TACACS+, LDAP, X.509 certificates		○	○
	NTPv4 Autokey (server and client)		○	○
Interfaces	Four 100/1000 BASE-T Ethernet ports		■	■
	Two 10 GbE Ethernet ports		○	○
	One 1000 BASE-T PoE port	■		
	Web interface (maximum security cipher suite)		■	■
	Display/Keypad with lockout		■	■
	LEDs: Sync, Network, Alarm		■	■
	RS-232 Console port and RS-232 Data/Timing port		■	■
	Alarm relay		■	■
Timing Outputs	1 PPS output		■	■
	NMEA-0183 output		■	■
	NENA PSAP I/O		■	■
	IRIG B AM/DCLS output (IRIG A/B/C37/E/G/1344/NASA36/2137/XR3/HaveQuick/PTTI outputs***)			■
	10 MHz output (1 MHz and 5 MHz output***)			■
	Programmable rates output***			○
	T1/E1 Outputs (Composite Clock, Japan Composite Clock, JSW, 2048 MHz***)			○
Miscellaneous	General server status logs (Syslog 1-8 servers)		■	■
	Email alerts		■	■
	Alarms, user-configurable	■	■	■
	Customizable log-in banners		■	■
	UTC leap second smearing/slewing for NTP operations		■	■
	Option module slots		0	2
Hardware Options	Dual power supplies (AC/AC or DC/DC)		○	○
	OCXO oscillator upgrade		○	○
	Rubidium oscillator upgrade		○	○
	Timing I/O modules (Standard, T1/E1, HaveQuick/PTTI, Fiber I/O)			○
	Low Phase Noise (standard LPN or Ultra LPN)			○
Software Options	Security Protocol license		○	○
	PTP Multi-port/profile grandmaster with PTP client list		○	○
	PTP input with Automatic Asymmetry Compensation		○	○
	Galileo/GLONASS/BeiDou/QZSS/SBAS constellation support		○	○
	1 PPS time interval measurement and external event time stamping			○
	FlexPort™ technology for timing I/O modules			○
	Programmable Pulse, Time-of-Day Triggered, XLi Compatible			○

■ Standard feature ○ Optional feature
 *Assumes at least one Timing I/O module is installed. See DS00002920 for all features and functions of the Timing I/O modules and FlexPort license
 ** NTP Reflector function is included in the Security Protocol license option on S6xx, 1,000 RPS is an option on S80
 *** Included in the Timing I/O module FlexPort license option, see DS00002920 for module specific features
 **** GPS/GLONASS standard, no BeiDou, Galileo or QZSS option for S80

SyncServer S600 NTP Network Time Server

Improve security, accuracy, and reliability of time services on the Enterprise IT network with the SyncServer S600. This robust time synchronization solution delivers:

- Highly secure NTP solution with our security-hardened NTP Reflector technology
- Four GbE LAN ports standard for advanced interoperability and ease-of-use (10 GbE ports optional)
- PTP output with multi-port/profile operations
- High-accuracy NTP hardware time stamping standard
- Easy-to-use modern web interface

S600 Network Time Server



SyncServer S80 Ruggedized/Integrated NTP Server

A fully integrated GPS/GLONASS antenna, receiver, NTP server, and PoE interface that easily integrates into existing PoE infrastructure to immediately be the source of accurate, secure, and reliable time stamps for all network-connected devices.

- Ideal for physical security networks isolated from the Internet that need accurate time stamps
- GbE PoE for easy installation and integration with existing physical security networks
- Environmentally hardened for all weather installations

S80 Network Time Server



SyncServer S650 Time and Frequency Standard

Flexibly deliver "any signal, any connector" time and frequency signals to the mission-critical instrumentation systems with the SyncServer S650. Designed for military and aerospace applications, the GPS referenced S650 delivers best-in-class synchronization performance and maximum adaptability. Innovative and highly versatile, this robust time and frequency instrument offers:

- Multi-connector, user-definable output signal configuration, eliminating the need for distribution chassis
- FlexPort™ timing technology for "any signal, any connector" capability
- Highly configurable Timing I/O modules supporting all manner of time codes, pulses, sine waves, telecommunication signals and fiber outputs and inputs
- Low phase noise options for best-in-class LPN performance
- Multiple GbE network ports for easy network configuration and adaptation (10 GbE optional)
- Multiple security-hardened, network-based features for stringent IA requirements

S650 with Timing I/O Modules (Optional Configuration)



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