

SyncServer® Model Comparison

Features		S80	S600	S650*
Time Protocols	NTP	■	■	■
	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 & PTP		■	■
	IRIG Time Code 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	■	■	■
	SHA1/256/512 and 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, RS-232 Data/Timing port, Alarm relay		■	■
	REST API		■	■
			■	■
			■	■
Timing Outputs	1 PPS output		■	■
	NMEA-0183 output		■	■
	NENA PSAP I/O		■	■
	IRIG 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***			○
Miscellaneous	T1/E1 Outputs (Composite Clock, Japan Composite Clock, JSW, 2048 MHz***)			○
	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		○	○
	BlueSky™ GPS Jamming and Spoofing Detection, Protection, Analysis		○	○
	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)



Note: The SyncServer S600 and SyncServer S650 are on the DISA/DoDIN Approved Products List