











## Hardware Options

### 10 GbE LAN Ports

Two additional 10 GbE SFP+ ports equipped with hardware time stamping that supports NTP, PTP, and NTP Reflector operations.

### Rubidium Atomic Oscillator Upgrade

Improves stability, accuracy, and holdover accuracy. Holdover accuracy is <1  $\mu$ s for the first 24 hours and <3  $\mu$ s after the first three days.

### OCXO Oscillator Upgrade

Improves holdover accuracy to 25  $\mu$ s for the first day.

### Dual AC Power Supplies

The dual-corded, dual-AC power supply option provides load sharing and active power management system with hitless failover.

### Dual DC Power Supplies

The dual-corded, dual-DC power supply option provides load sharing and active power management system with hitless failover.

### Antenna Accessories

Antenna cables and accessories enable versatile solutions to meet most installation requirements.

Note: For complete information, see the Options datasheet.

## Software Options

### Security Protocol License with Security-Hardened NTP Reflector

Security-hardened NTP Reflector and authentication hardening with NTP Autokey, TACACS+, RADIUS, LDAP, and CA-signed X.509 certificates.

### PTP Output/Grandmaster (Simultaneous Multi-Port/Profile)

Single license enables multi-port, multi-profile IEEE 1588 PTP Grandmaster operations leveraging the built-in hardware time stamping in all SyncServers.

### PTP Input

PTP as a timing input for tunneling time through PTP or as a backup time reference in the event of the loss of the GNSS signal.

### Multi-GNSS Constellation

Track GPS/SBAS, Galileo, QZSS, GLONASS, and/or BeiDou constellations for improved integrity and satellite visibility in an urban canyons.

### BlueSky GPS Jamming and Spoofing Detection, Protection, Analysis

Detect GPS jamming and spoofing related anomalies in real-time to protect essential time and frequency outputs.

### Synchronization Software

Comprehensive MS Windows-based network time synchronization software with monitoring and auditing functions.

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