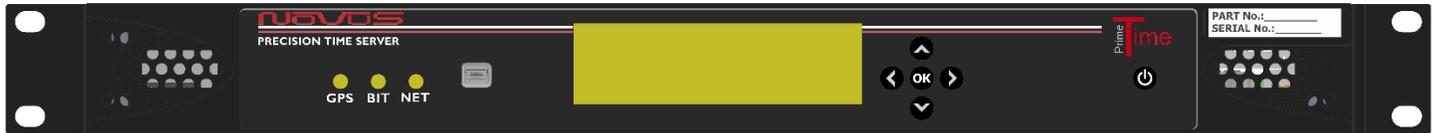




| | |
|-------------------|------------|
| PRODUCT DATASHEET | NS8000-NTP |
| REVISION #: | 2 |
| DATE: | 022326 |

NS8000-NTP

NTP SERVER



Network Timing Services

NTP v2 v3, v4 RFC 1305 and 5905. Unicast, Broadcast and Multicast.
SNTP v3, v4 RFC 1769, 2030, 4330, and 5905. +/-150 ns accuracy

Timing Signals (Options)

10 MHz Sine Output (5 Outputs per Module optional BNC or SMA)
PPS (5 Outputs per Module optional)
IRIG (B-003)

Communications – Monitoring and Configuration Management

Web based user interface HTTP(S)
SNMP v1, v2, v3
USB Mini B serial System Management
RS-232 Serial NMEA and System Status Messages

Technical Specifications

| | |
|-----------------------------------|--|
| Reference Frequency Output | |
| 10.0 MHz Sine | 1 Vrms \pm 0.2, into 50 Ohms |
| Locked stability (AD) | 5E-11 |
| First year frequency stability | +/-40 ppb (unlocked) |
| Temperature stability | +/-100 ppb (unlocked) |
| Connector | BNC |
| 10.0 MHz Phase Noise | |
| | (dBc/Hz) |
| 1 Hz | - 86 |
| 10 Hz | -116 |
| 100 Hz | -134 |
| 1 kHz | -145 |
| 10 kHz | -157 |
| 100 kHz | -159 |
| PPS | |
| Amplitude for PPS | 3.3 Vdc CMOS (5 Vdc option) |
| Accuracy | 5ns 1 sigma |
| Pulse width for PPS | Programmable 1 to 500ms in 1 μ sec steps |
| Rise time for PPS | <5 ns |
| Load Impedance | 50 Ohm |
| Connector | SMA |

| | |
|---|--|
| Front panel Indicators and Control | |
| System status display | Channel status, system status - front panel display LCD color |
| Front panel lights | 3 LEDs GPS BIT NET green |
| 5 button selector switches | Round momentary switch assembly, up, down, left, right, enter. Selects active display mode |
| Remote interface | |
| Rear Panel Serial | DB-9F, RS232 serial for system status and device configuration 115200 baud default |
| Network Management | Ethernet: 10/100/1000M RJ-45 |
| Network Time Server | Ethernet: 10/100/1000M RJ45 |
| SNMP | v1, v2c, v3 Status monitoring, Simple Network Management Protocol |
| System Management | USB, SNMP, SSH, Web UI (network user interface) |
| Web UI | Administrator interface for Networking, Firewall, Users, Logs, Status |
| Power | |
| AC connector | IEC 320-C14 |
| AC input | 90 to 230 VAC, 50/60Hz, less than 25 Watts |
| DC input | Inquire for power supply configuration options |
| System power switch | Front panel soft switch |

Technical Specifications

| GNSS receiver | |
|--|--|
| Constellations | |
| GPS | L1C/A (1575.42 MHz), L2C (1227.60 MHz) |
| GLONASS | L1OF (1602 MHz + k*562.5 kHz, k = -7,..., 5, 6) L2OF (1246 MHz + k*437.5 kHz, k = -7,..., 5, 6) |
| Galileo | E1-B/C (1575.42 MHz), E5b (1207.140 MHz) |
| BeiDou | B1I (1561.098 MHz), B2I (1207.140 MHz) |
| Sensitivity (with Novus recommended antenna) | |
| Tracking | -167 dBm |
| Reacquisition | -160 dBm |
| Cold Start | -148 dBm |
| Hot Start | -157 dBm |
| GNSS receiver- Dual-Time Base (optional module) | |
| Constellations | |
| GPS / SBAS | L1C/A (1575.42 MHz) |
| GLONASS | L1OF (1602 MHz + k*562.5 kHz, k = -7,..., 5, 6) |
| Galileo | E1-B/C (1575.42 MHz) |
| Sensitivity GPS (with Novus recommended antenna) | |
| Tracking | -161 dBm |
| Reacquisition | -161 dBm |
| Cold Start | -147 dBm |
| Hot Start | -161 dBm |
| Sensitivity GLONASS (with Novus recommended antenna) | |
| Tracking | -157 dBm |
| Reacquisition | -157 dBm |
| Cold Start | -143 dBm |
| Hot Start | -157 dBm |

| Mechanical | |
|-----------------------------------|--|
| Height | 1RU (~1.73") EIA 19" rack compatible |
| Width | 19.0" |
| Depth | 15.0" |
| Weight | 7.0 lbs. |
| Environmental | |
| Operating temperature | -10 to 65°C |
| Storage temperature | -40 to 70°C |
| Humidity | 0% - 90% RH non-condensing |
| Agency Certifications | UL / FCC Part 15 |
| EU compliance | RoHS, REACH, WEEE |
| EMC Compliance Emissions/Immunity | CISPR 32 Emissions CISPR 35 Immunity IEC 61000-4-2 ESD IEC 61000-4-3 Radiated IEC 61000-4-4 Transient/burst immunity IEC 61000-4-5 Surge immunity IEC 61000-4-6 Immunity to conducted |
| Safety | UL 62368-1 |

Revision History

| Rev. | Date | Nature of Changes | Approved By |
|------|-------------------|-------------------|-------------------|
| 1 | December 15, 2025 | Initial release. | Christian Cochran |
| | | | |



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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