

## Network Time Server Product Feature Chart

	Sonoma D12 / N12 (GPS)	Sonoma D12 / N12 (CDMA)
<b>Time References</b>		
GPS CDMA Availability	12-channel receiver  GPS is available worldwide.	Cellular/PCS  CDMA is available in the USA, China, India, Korea, Japan.
<b>Antenna Installation</b>		
GPS CDMA	Roof-top or window-mount	Indoors: data centers, etc.
<b>Time Synchronization Accuracy to UTC(USNO)</b>		
Receiver (GPS or CDMA) NTP Timestamp NTP Client (depends on network)	30 nanoseconds 10 microseconds ½ - 2 milliseconds, typical	10 microseconds (typical) 10 microseconds ½ - 2 milliseconds, typical
<b>Network Ports</b>		
Number and Type	Two 10/100/1000 Base-T	Two 10/100/1000 Base-T
<b>Network Time Protocols</b>		
NTP Server (v2, v3, v4) SNTP, Time, Daytime Max NTP requests/second	√ √ 7,500	√ √ 7,500
<b>Other Network Protocols</b>		
HTTPS/SSL (Web Interface) SNMP v1, v2c, v3 with Custom MIB II DHCP client SSH/SCP Telnet client/server FTP client MD5 for NTP NTP v4 Autokey (server and client) SYSLOG IPv4 and IPv6	√ √ √ √ √ √ √ √ √ √ √	√ √ √ √ √ √ √ √ √ √ √
<b>User Interface</b>		
Vacuum-Fluorescent Display & Keypad * RS-232 Port Ethernet Ports LEDs Web Interface Statistical Performance Graphs (CPU, NTP, Oscillator)	Sonoma D12 model only * √ Two 10/100/1000 Base-T √ √ √	Sonoma D12 model only * √ Two 10/100/1000 Base-T √ √ √
<b>Optional PTP/IEEE-1588</b>		
Version Hardware-Timestamp Resolution Timestamp Accuracy to UTC(USNO)	v2. On one or both ports. 8 nanoseconds 38 nanoseconds	v2. On one or both ports. 8 nanoseconds 10 microseconds
<b>Other Optional Features</b>		
Oscillator Upgrades (OCXO and Rubidium) Pulse Rate Outputs (1 PPS, 10M PPS, Programmable) IRIG-B Time Code (AM or DC) Power Supplies (-48V Input, Dual AC/AC, etc.) Alarm, Sysplex Output, DDS Output and more.	√ √ √ √ √	√ √ √ √ √

\* The only difference between Sonoma D12 and Sonoma N12 is the front-panel display & keypad.