

PK70 EX NTP

Network Time Server

NTP Version



Overview

The PK70 EX NTP is a Network Time Server that synchronizes to GPS satellites to provide Stratum 1 level time accuracy to devices over a network. Configuration and up-to-date status information for the PK70 is easily accessed through an intuitive web interface. It is operational through an industrial temperature range and meets the demands of RoHS compliance. In addition, when accompanied with a development kit, the software itself is completely customizable and can be tailored to suit any number of needs or requirements.

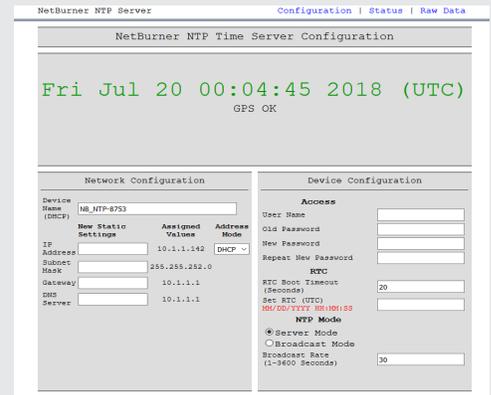
DATASHEET

Time Server

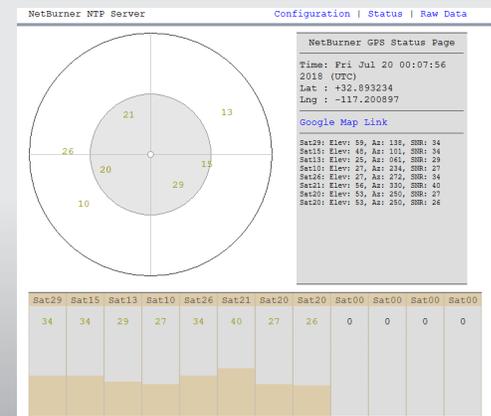
- Stratum 1 accuracy through GPS satellites
- Web interface for configuration and to view satellite data
- Supports NTPv4 (RFC5905), NTPv3 (RFC1306), and NTPv2 (RFC1119)
- Supports RFC1769/2030/4330 Simple Network Time Protocol (SNTP)
- Server Time Precision: Better than 5mS + network jitter.
- Can service 1000 requests per second
- 10/100Mbps Ethernet interface
- Supports IPv4 and IPv6
- LED indicators for power, lock, and error

GPS

- Accuracy: 30ns RMS
- Time to first fix (TIFF)
 - Cold start: 30s at -147dBm
 - Warm start: 1s at -156 dBm
- Supports +3.3V active GPS antennas
- 167 dBm navigation sensitivity
- System software: NBRTOs, ANSIC/C++ compiler and linker
- Faster positioning through augmentation of QZSS and IMES together with WAAS, EGNOS, MSAS, GAGAN.
- Concurrent reception of up to 3 GNSS systems
 - GPS
 - Galileo
 - GLONASS
 - BeiDou
- GNSS chips are qualified according to AEC-Q100
 - Manufactured in ISO/TS 16949 certified sites
- Receiver type is a 72-channel u-blox M8 engine
 - GPS L1C/A - QZSS L1 SAIF
 - SBAS L1C/A - GLONASS L1OF
 - QZSS L1C/A - BeiDou B1I
 - Galileo E1B/C



NTP Configuration Page



NTP Status Page



Specifications

Performance and Memory

32-bit Freescale ColdFire 5270 CPU running at 147.5 MHz
8MB SDRAM
4MB Flash

Connectors

- DB9 for RS-232 console port
 - 115200 Max Baud Rate
- RJ-45 Ethernet
- SMA for GPS Antenna
- Input Power:
 - 2.1 mm barrel jack
 - 2 pin terminal strip
- SD/MMC flash card interface

System

10/100 Mbps Ethernet
SD/MMC Flash Card Interface with SDHC support

- Requires exclusive use of SPI signals

Power

Input power range: 7VDC - 24VDC through barrel jack or terminal strip
Includes 9V 600mA wall power supply

Environmental Operations

Operating Temperature: -40 to +85C
Humidity: Up to 95% non condensing

Physical Dimensions

4.4" x 3.9" x 1.2" (inches)

RoHS Compliance

The Restriction of Hazardous Substances guidelines ensure that electronics are manufactured with fewer environment harming materials.

Agency Approvals

UL, C/UL, CE, FCC



Companion development kit

The following is available with the development kit:

- Customize any aspect of operation including web pages, data filtering, or custom network applications
- Development software: NB Eclipse IDE, Graphical debugger, deployment tools, and examples
- Communication software: TCP/IP stack, SSL/TLS 1.3, HTTP web server, FTP, E-mail, and flash file system
- System software: NBRTOs, ANSI C/C++ compiler and linker

Part Numbers

PK70 EX NTP Network Time Server

Part Number: PK70EX-NTP

PK70 EX NTP Development Kit

Part Number: NNDK-PK70EXNTP-KIT

Kit includes all the hardware and software you need to customize the included platform hardware. See NetBurner Store product page for package contents.

Note:

The kit does NOT include a GPS Antenna.

GPS Antenna

Part Number: NBANT-464

DIN Rail Mounting Kit (100 Version, double sided)

Part Number: DIN-100

DIN Rail Mounting Kit (200 Version, single sided)

Part Number: DIN-200

Ordering Information

E-mail: sales@netburner.com

Online Store: www.Netburner.com

Telephone: 1-800-695-6828