

# GPS TCP/IP Time Server

## GPS-4-E-TCP



### Introduction

The GPS-4-E-TCP Network Time server provides a high precision time directly to TCP/IP or NTP networks us. It synchronizes time of any TCP/IP clients running on remote PC' s. It supports TCP/IP or NTP clients for more of current popular operating systems including: Microsoft Windows 95/98/Me/NT/2K/XP, Linux, FreeBSD, IBM AIX and other UNIX family systems. It can synchronize simultaneously thousands of servers, workstations and routers.

### Features

The GPS-4-E-TCP is high quality professional time server for computing, telecom, military, power grid, traffic systems and other science purposes. It has been manufactured with no mechanical parts as coolers or hard disk. All cooling system has been resolved on natural air circulation outgoing via metal case of unit.

### Technology

NTP : supports all versions of NTP, SNTP including latest release 4.1.1 supporting modes: CLIENT,SERVER, BROADCAST, MULTICAST. Authentication: MD5 with manual/automatic key generation.

SNTP or TCP/IP : supports all versions of Simple Network Time Protocol

OS Supports :Windows 95/98/Me/2K/XP/WIN7/CE, OS/2, VAX-11/785 v4.3, HPUX, SunOS, Solaris, MIPS Ultrix, ALPHA OSF/1, SGI IRIX, A/UX, AIX, Sinix, BSD, Linux, Dell SVR4, SCO Unixware, CISCO products.

LAN : 10/100 Based T: RJ-45 connector IEEE 802.3 - shielded data line

The following are not necessary, just for options:

IRIG-B: 2 channels of terminal or 2 channels of BNC

RS-485: 2 channels(serial code)

RS-232: 4 channels(serial code)

PPS: 2 channel 1 PPS, 2 port 1 PPM , 1 channel 1 PPH ((TTL/ active optical isolation and passive)

Alarm dry contact output: 1 channel

Others:

Chipset : Motorola receiver (8) channel with RAIM

Antenna: BNC1.5GHz / 8m + active converter (IP65 to UTP Cat5. cable 200m. (max.500m),

RECEIVER : input frequency 1575.42MHz (L1).

INPUT : 110-240V AC/DC, DC48V,DC24V,DC12V FUSE : 1 electronic

OUTPUTS : +5V / 5A, +12V / 0.6A, -12V / 0.5A TOTAL LOAD : 60 Watt

GPS ACCURACY: better than  $\pm 100$  nsec after synchronization of first 1 hour better than  $\pm 1$   $\mu$ sec during the first hour of operation

NTP Accuracy : Better than 10 msec (with nanosecond kernel) HOUSING : Metal desktop case, 1U/2U/3U/4U

Front Panel: 43mm high / 483mm wide

Protection : rating IP20

Indication LED: Blinks when GPS signal off or error in master clock.

LCD Display: 6 character+8 character .Can display local & UTC time ,longitude, latitude & altitude,Error warning.

Temperature : 0~ 70°C

Storage: -40~ 125°C

Humidity: 85% max

Housing Color: Balck or White

GPS Antenna Cable: 30 meters wire with GPS antenna

