

# GPS IRIG-B Time Server

*GPS-IR-22*



## Introduction

The GPS-IR-22 GPS source Irig-B time server(generator) provides a high precision IRIG-B time code as well as 1 PPS pulse directly to IRIG-B devices. The unit automatically acquires all in-view satellites upon power up and locks an internal IRIG-B time code generator to the GPS time reference. If the GPS lock is lost the GPS-IR-22 will automatically switch to an internal clock and continue generating the output IRIG-B signal. No discernible change in the IRIG-B output will occur due to this transition.

## Features

The GPS-IR-22 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

IRIG B Output: Standard IRIG B002 serial demodulated time code IAW IRIG Standard 200-98. Each output is capable of driving a 50 ohm load and each output can drive up to five devices each. All outputs are short circuit protected. The GPS-IR-22 is compatible with the ITS Model 490-D20 IRIG Distribution Amplifier.

Status and Clock Outputs TTL: Standard TTL levels

OC(open Collector): Mosfet, Max Voltage: 100V  
Max current: 1.3A, On resistance at 1.3A: 0.3 Ohm,  
Max Drain-Source leakage: 500 nA.

### The following are for options:

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

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 Specs:

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

Outputs Power: +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