TimeLink
microsystems

SG110

GPS synchronized time generator for industrial applications

The SG110 is a pulse generator synchronized by GPS. It provides a pulse in phase with the 1PPS signal from the built-in GPS receiver. This equipment generates a pulse synchronous of the second UTC.

This pulse has a fixed duration of 1s and his periodicity is programmable. The frequency is expressed:

- either in terms of number of seconds programmable from 5s to 3600s also with values pre-5s, 15s, 30s, 45s and 60s.
- either in terms of particular moment in the day: "hh: mm: ss"

Generally two SG110 equipments are used in order to generate pulses synchronized on two remote geographic locations.

Connections

The equipment must be connected to a DC power supply using the supplied power adapter or any other means compatible with the permitted voltage range.
An active antenna must be connected to the antenna input. The antenna must be positioned optimally in a cleared area and undisturbed to allow a good reception.

Configuration

The functioning of the equipment can be set from a terminal connected to the "CONSOLE" connector. This parameter refers to the elements listed in the table below:
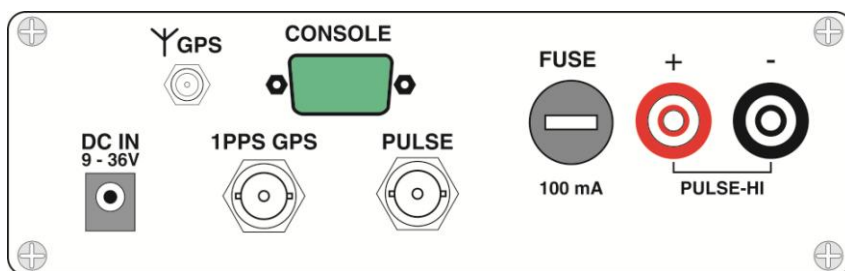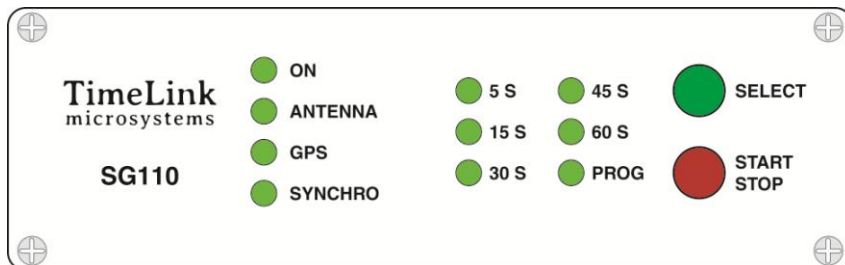• Programming the period in number of seconds: 0, 5 to 3600.
• Setting the time of transmission of the pulse in HH: MM: SS.
• Programming the start mode: immediate pulse transmission as soon as the equipment is ready (0) or waiting action on the START / STOP button
• Programming the delay in seconds before invalidating the issue, in the event of receipt by the GPS of satellites under 4.
• Setting the number of acquisitions allocated to "self-survey" of the receiver.
• Programming the difference between GPS time and UTC.

console Interface

When a terminal is connected to the "CONSOLE" connector (you can use a standard serial right cable female/male to connect to a PC), the user has access to the various functions through menus.

.

Specifications

Features	Types / Values
1PPS GPS output	Level : 0-5V, active high state
	BNC female socket
	Duration : 125µS or 1mS according to built in receiver
PULSE output	Level : 0-5V, active high state
	BNC female socket
	Duration : 1s
GPS antenna	Active antenna 3.3V or 5V (default position 3.3V)
	BNC female socket
Console	Serial asynchronous RS232, 115200 bauds, 8 bits, without parity , 1 stop bit
	Protocol
Power supply input	Jack socket (2.5 mm pin diameter)
	Voltage range: 9 to 36 VDC
PULSE-HI output	Two power sockets SLB4-E fuse protection 100 mA

Front & rear face of the equipment

Ordering code:
SG110:: standard Equipment