LL-8200-703

GPS Time Generator and Time Server

Datasheet V 2.3

LL-8200-703
Time Code System

Key Features

- **Multifunctional Timing and Frequency Generator**
- **GPS synchronized**
- **IRIG B 126 Output**
- **10MHz Output 4ea**
- **1PPS Output 2ea**
- **IRIG Reader with programmable Error Frame Bypass**
- **HaveQuick Output 4ea**
- **HaveQuick Fibre Optic Link**
- **NTP STRATUM I Time Server**
- **Sysplex Output**
- **LED Time Display**
- **LCD Status Display with Push buttons**
- **All operating controls and status indicators located at the front panel.**

Description

The **LL-8200-703 GPS Time Generator and Time Server** is a specific version of the LL-8200-700 Time Code Generator with fixed setup, as described on the left and in the specifications on page two.

The **LL-8200-700 Time Code Generator** is a GPS synchronized, multifunctional timing and frequency generator. The unit offers a wide selection of signals and capabilities, and allows tailoring outputs to specific applications optimally.

As a time generator the unit develops serial time codes (IRIG B or HaveQuick) for distribution of time information and synchronisation of other equipment. Also other timing signals are available, 1PPS (1Hz) as on-time marker, and different frequencies. A BCD time code option is available with microsecond resolution. NTP/SNTP time service is optionally available from RJ45 port.

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LL-8200-703 Time Generator/Server

Specifications:

Internal Time Base

Rubidium:
Aging: 2x10E-11 per Day
<±2x10-9 per Year
Short Term Stability, Allan Deviation
1sec <±3x10-11,
10sec <±1x10-11,
100sec <±3x10-12
GPS 12 Channel Timing GPS Receiver
GPS L1 C/A

Input

IRIG B 126
Carrier Frequency: IRIG B – 1 kHz
Modulation Ratio: 2:1 to 6:1
Input Signal Level: 2.0volts to 3.0 volts peak-to-peak
Input impedance: greater than 50kΩ, single-ended

GPS Antenna Input Signal: 1575,42 MHz (L1)

Fibre Optic Input
Wavelength: 820nm
Format: HaveQuick ICD-GPS-060A

Output

Fibre Optic Output
Wavelength: 820nm
Format: HaveQuick ICD-GPS-060A

10 MHz 4 ea
Frequency: 10 MHz
Stability: derived from internal Time Base
Format: sine wave, >7 dBm

1PPS 2ea

1PPS-1:
Level: TTL
Format: 20µsec/500ms selectable

1PPS-2:
Format: ICD-GPS-060A
Level: 10VDC (+1-2V into 50Ω)
Ontime: Rising Edge
Length: 20µsec

IRIG B AC output 1ea
Format: IRIG B 126
Carrier Frequency: 1 kHz sinewave

IRIG B DC output 1ea
Format: IRIG B 026
Level: TTL

HaveQuick output 4ea
Format: ICD-GPS-060
Level: TTL

Supported Time Protocols

NTP (LAN) NTP SERVER STRATUM 1
v2, v3, v4 (RFC1305, RFC1119, RFC5905, RFC5906, RFC5907, RFC1769)

Sysplex Time Protocol (RS232)
1, 4800baud, 8N1

LAN

TCP/IP IPv4, IPv6, TCP, UDP
MANAGEMENT HTTP, HTTPS, SSH, TELNET
SECURITY Autokey, DSA, SSL, MD5, RSA
SYSLOG yes

Electrical

Main power
Voltage: 115 VAC or 230 VAC ± 10%
Frequency 48 – 62Hz (400Hz Optional)

Connectors
IRIG in/output BNC
10MHz output BNC
1PPS BNC
Power: IEC
RS232 9pin Sub-D, female
HaveQuick BNC
Fibre Optic ST
GPS Antenna TNC
LAN Eth ernet 10 /100 Base-T (RJ45)

Environmental

Temperature
Operating 0°C to +55°C
Storage -20°C to +70°C
Relative Humidity: Operating 95% over dry bulb range of +38°C to +85°C

Chassis

1HU, 19" rack-mount unit cabinet
in reference to DIN41494-5 / IEC297-3.
Dimensions: (HxWxD) 44,0 mm x 483 mm x 450mm

These dimensions include mounting brackets on the front side. Front panel switches and rear panel connectors are excluded in these dimensions.

The mounting brackets are not designed to hold the unit in the rack without supporting rails!

Display

9 x LED, 20,3 mm height (0,8")
red, max. 14mcd per cipher
intensity adjustable

LCD Display with Push buttons

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