

## SR1246-SR1256

# Multi protocol Time Code display NTP, IRIGB, RS422



### Key features

- Display IRIGB, RS422 or NTP time code
- Automatic selection of the available time source.
- Redundant operation according to multiple time sources
- Display chaining
- 2U height (89.08 mm) or 144 mm
- Brightness control

**SR1246** and **SR1256** are robust and light time displays, that can be used in a rack or wall mounted. They come in two models:

- **SR1246**, 2U height, width 19", 80 mm depth, rack mount or wall mount. 7 red LED segments, visibility > 15m.
- **SR1256**, 144 mm height, 660 mm width, 80 mm depth, wall mount. 7 red LED segments, visibility > 30 m.

This multi protocol display is able to receives, processes and displays a TU time code, received in the following 3 formats :

- NTP Digital ETHERNET
- Digital RS422 (ASCII time chain)
- IRIG-B12X, AFNOR, and IEEE1344

The display uses 6x7 LED segments for time with the format : HH :MM :SS LED and 4x16 segments LEDs for :

- The day of the year or the type : « UT », « CD » or « H0 »
- One default mark : "\*"
- The sign + or - for the CD

To operate the display must be connected to the 230V AC sector source and get at least one of the following time source :

- NTP frame : network link, network cable CAT5 with RJ45 standard connector.
- RS485 frame: digital link carrying the time frame, twisted pair cable with Sub'D 9 pins male connector.
- IRIGB signal : analog modulated signal, coax cable with BNC connector.

The display automatically selects the time source available.

### Settings

Display setting is done using one serial RS232 link with the following characteristics : 115200 bauds, 8 bits, no parity, 1 bit stop. The link "Console" allows the direct connection with a PC. A software like Windows HyperTerminal or Linux/ Minicom is well suited for terminal setting.



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The automatic operation of the display depends of the programmed configuration.

This configuration is stored in a non volatile memory of EEPROM type. It is restored when the display is powered On.

Brightness is adjustable with 10% steps. The setting is done using two push buttons « + » and « - » located on the rear face. The setting is automatically memorized.

The RS422 output allows to chain the displays. The RS422 output is always generated whatever the type of the received frame. The display is acting as IP converter to RS422 or IRIGB converter to RS422.

### NTP

Two operating modes are available when running in NTP : broadcast (default mode) and on request. In all cases the display uses 2 IP time sources address in order to ensure redundant operation and automatic checking of the NTP/IP address for security reasons. It listen/ask a first address and then automatically shift to the second in case of failure. The gap between two interrogation/listening of the time source is a parameter and allow a sufficient precision for time display (+/- 50 ms). In the case of loss of the two time sources, the display carry on incrementing is local time thanks to his internal oscillator.

### Selection of the time source

Selection of the entry time source is automatically done. The processor received the time coming from the 3 possible sources : network, RS422 and IRIGB.

If several sources are active, the « PTY » parameter witch fix the priority between the sources is used. This allow to automatically manage the redundancy of the system.

### Displays chaining



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### Interfaces

Console : Standard : RS232 - 3 threads Connector : Sub'D 9 pins female

Ethernet Network: Standard : Ethernet 10/100 Mbs, RJ45 connector.

Input/output RS422 : Standard : RS422 / RS485connector: Sub'D 9 pins female

IRIGB input: Standard : IRIG B. 1 KHz carrier, amplitude modulated 1/3 : 1/1: BNC connector.

### Dimensions

Width 19", height 2U, depth 80 mm. Rack mount, or wall mount (mechanical adaptor provided); Weight 2 Kg.

144 mm height, 660 mm width, 80 mm depth, wall mount. Weight : 4 Kg.

### Consumption

20 W (SR1245), 25 W (SR1255)

MTBF = 85 000 h

### Options-specific requirements

On request the SR12XX displays are able to operate with specific time codes (specific IRIGB frames, UT+CD frames, etc...)

Don't hesitate to contact us for any requirements.