

TMA1235

Multi protocol time code display for UT & Countdown

The TMA1235 display is dedicated to UT & Countdown display. It's housed in a standard 1U rack.

Main functions

- Display of time received in an Ethernet frame or a IRIGB12x signal.
- Automatic selection of the available time source
- Display of 3 types of time code: UT, CD or H0
- This multi protocol display is able to receive, process and display a time UT / CD / H0 received in one of two formats:
 - Digital Ethernet (IP protocol available on the TimeLink clocks CNES / CSG)
 - IRIG-B UT / CD / H0 identical to the time signals broadcast today on the BLA at the Guiana Space Centre.

Displaying

The display consists of six 20 mm 7 segment digits for the time as HH: MM: SS and 4x20 mm 16 segments digits for:

- the day of the year or type "UT", "CD" or "H0"
- failure marker "x"
- + or - for the CD

To be functional, the display must be connected to 230V AC and have at least one of the time sources:

- IP frame: network link, standard CAT5 cable with RJ45 plug.
- IRIG B Signal (UT, CD or H0): analog modulated signal, coax BNC or twisted pair cabling on BR2 connector.

Parameters setting

The setting of the display is via a serial link. The link "Console" allows direct connection to a PC. The display has an automatic operation which depends on the programmed configuration. This configuration is stored in non-volatile EEPROM memory. It was restored when switching on the display.

Brightness is adjustable in steps of 10%. The adjustment is made by two push buttons "+" and "-" on the reverse side. It may also be done remotely by the console link or Ethernet..

Viewing Angle

The viewing angle relative to the axis is very important + 85 ° / - 85 ° which allows optimal viewing of any point within control room

Code type

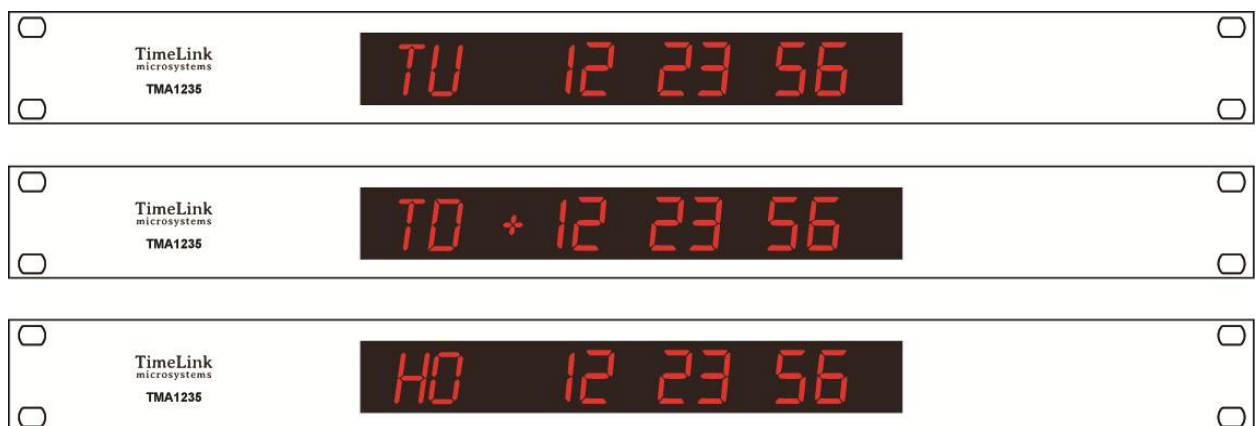
Selection code UT / CD or H0 is done by a push button. Each press switches to the next code. The display always shows the selected type of code when changing. The type of code can be displayed or not. If it is displayed, it takes the place of the date (UT and CD)

Selecting the displayed time is common to all interfaces. Ethernet frames received per carry three times. The IRIG B by cons is dedicated to only one time.

Choice of the time source

The choice of the source of the input time is done automatically. The processor receives the time from two possible sources: network and IRIG B.

If several sources are active, "PTY" parameter determining priority between sources is used. It is thus possible to automatically manage redundancy. In the absence of input signal coming into the display, the display automatically increments the time from its internal time base.



Front face – Display of the 3 times UT/CD/H0

Interfaces

Console : Standard : RS232 – 3 wires
Connector : SubD 9 pins female -
115200 bauds, 8 bits, no parity 1stop
bit.

Ethernet network: Standard : Ethernet
10/100 Mbs, Connector : RJ45

IRIG B input: Standard : IRIG B. 1 KHz
carrier amplitude modulated 1/3 : 1/1
Connectors BNC & BR2 wired in
parallel.

Dimensions

Height 1U, width 19", depth 250 mm.

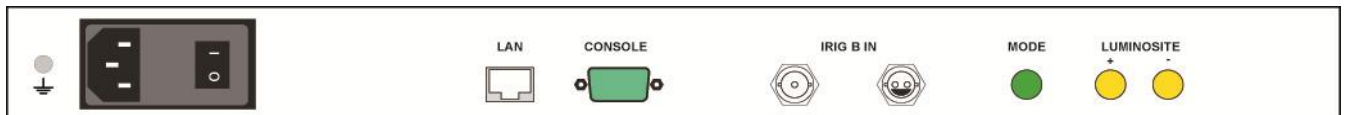
Weight

2 Kg

Consumption :

10 W

MTBF > 100 000 h



Rear Face