TimeLink
microsystems

TMA2045

Multi protocol time code display for UT & CountDown

The TMA2045 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 an 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)
• IRIG-B UT / CD / H0

Display

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 "*"
• + 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 done 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 is restored when switching on the display.

Brightness is adjustable by a rotary encoder. It may also be done remotely by the console link.

Viewing Angle

The viewing angle relative to the axis is very large + 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 push 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 processor receives the time from two possible sources: network and IRIG B.

Front face – Exemple Display of CD

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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

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

Dimensions
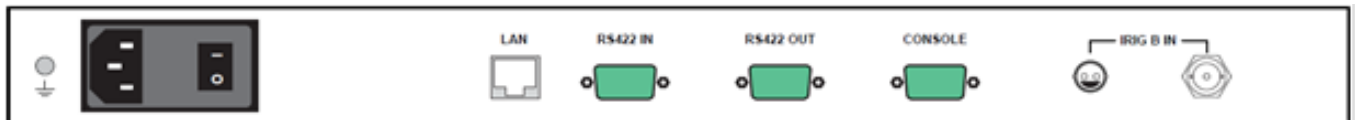
Height 1U, width 19', depth 250 mm.

Weight

2 Kg

Consumption :

10 W

MTBF > 100 000 h

Rear Face

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