Model 4273

Time Code Reader/Generator MIX Module

Features

- May be used to time-stamp data
- Generates and decodes two standard time code formats
- Accepts carrier frequencies from 500 Hz to 8 kHz
- On-board TMS320E25 DSP
- Time information on visual display, serial port, carrier modulation, or over the MIX interface

Ordering Information

Model	Description
4273	Time Code Reader MIX module

General Information

Model 4273 is a general purpose time code reader MIX module for time-stamping data in VMEbus workstations and embedded systems. It accepts carrier frequencies from 500 Hz to 8 kHz, and generates and decodes two time code formats, IRIG B and 2137.

The module operates in forward direction and generates/decodes time formats from 1x to 4x time.

The time information is available on a visual display, through the on-board RS-232 port, carrier modulation, and over the MIX interface. Pulse interval is programmable with 1 PPS standard.

On-Board Intelligence

A TMS320E25 DSP processor is used to process the various time codes. As a result, the exact number of different time codes is only limited by the carrier frequency and available software. Software may be written to handle new time codes that could arise in the future.

Since all the time code functions are performed by the 'E25 DSP, the Time Code Reader module has minimal impact on the host processor throughput.

Time Code Selection

The various time codes can be selected either by writing to the module through the host processor, or by switch settings located on the module. As a result, Model 4273 can also operate in a standalone mode requiring the MIX interface only for power.

Specifications

Time Code Input

Format: IRIG B, 2137

Input: 0.5 to 5.0 V peak-to-peak, AGC control; 5 kohm input impedance; front panel SMA connector and input activity indicator

Front Panel Display:

16-digit, 5 x 7 matrix, alphanumeric; shows rate, hours, minutes, seconds

Internal Time Base

±10 msec resolution, ±10 msec closed loop accuracy, ±50 ppm open loop drift at 25 deg. C

Programmable digits

IRIG B

sec: x1, x10, x100

min: x1, x10

hrs: x1, x10

days: x1, x10, x100

Settings

manual settings through front panel digit select and set keys; over the MIX bus, memory-mapped registers for each digit.

Serial Interface

Type: RS-232-C

Connector: front panel female DB-9

Data rate: 9600 baud asynchronous

Power: 1.5 A at +5 V, 0.1 A at +12 V, 0.1 A at –12 V from the MIX bus

Block Diagram, Model 4273