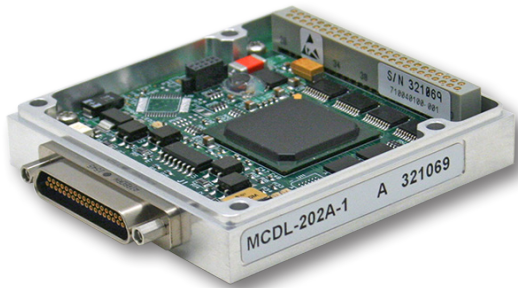


MCDL-202A-1

Cross Channel Data Link Bus Monitor Module

**CURTISS-
WRIGHT**

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Key Features

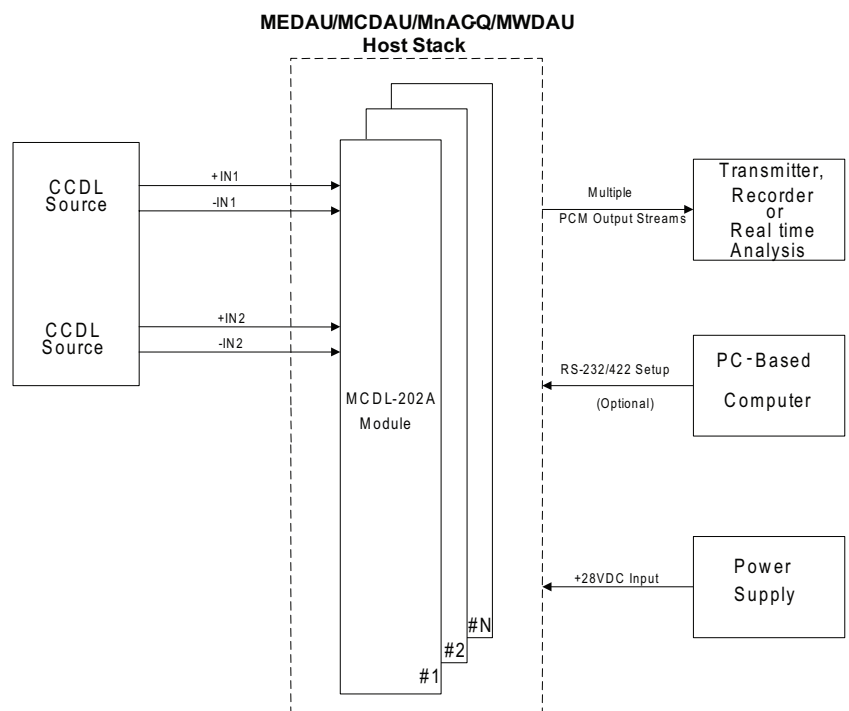
- Cross Channel Data Link (CCDL) bus monitor module
- Two channels
- RS-422 data input (10 Mbps)
- RS-422 PCM output of all messages
- IRIG-106-96, Chapter 4 data output based on:
 - + Selected data from preprogrammed message trigger list
 - + Trigger list can have up to 511 messages identified per channel
 - + Message filtered on the first 32-bit CCDL data word
- Time tag on a per-message basis
- High, low and micro time
- Multiple modules in a single stack

Applications

- Instrumentation
- Avionics Bus Monitoring
- Lab Test

Overview

The MCDL-202A-1 is a two channel Cross Channel Data Link Bus monitor module for use in Curtiss-Wright's miniature stack encoder products. Up to 511 incoming trigger list messages are stored in the local trigger list memory per channel. All messages are triple buffered for coherency. The messages on the trigger list are identified according to the first 32-bit word in the message. Each message is time tagged for insertion into the chassis' format. The MCDL-202A-1 also supplies an RS-422 PCM output with all incoming CCDL messages.



MCDL-202A-1 block diagram

Specifications

General

- Supply current: +5V @ 300mA maximum
- Power consumption: 1.5W maximum
- Operating temperature: -40° to 85°C (box ambient temp)
- Storage temperature: -55° to 100°C

Dimensions and Mechanical

- Compatibility: Operates in any Curtiss-Wright miniature stack encoder
- Weight: 2 ounces (57 grams) not including the mating connector
- Unit connectors: Single MDM37S
- Mating connectors: MM212-037-161-45WD

Bus Monitor Functions

- Input channels: Two CCDL channels
- Physical: RS-422
- Encoding: Manchester at 10 Mbps (MSb first)
- Start indicator: 1 1/2 bits high followed by 1 1/2 bits low
- Header: 6-bit indicating number of 32-bits data words (59 maximum)
- Parity: Message ends with one 32-bit Odd Vertical Parity Word
- Memory capacity: 1Mx16 used for storage of up to 1024 trigger list triple-buffered messages

Selected Data Functions

- Output: Selected data words available for transmission under format control
- Packet selection: Based on first 32-bit word of the packet
- Number of filters: Up to 511 per channel
- Status: Provides four status bits for State, Overflow, Parity, and Manchester encoding error
- Time tag: Time tag on the header
- Time format: High and Low Time Programmable for BCD or Straight Binary time. Micro Time always Straight Binary time

Composite Data Functions

- Output: Provides composite data per IRIG-106 Chapter 8. Channels are multiplexed into one PCM stream
- Physical: RS-422
- Frame size: 128 or 256
- Time tag: On frame and packet
- Bit rate: Selectable up to 20 Mbps

Ordering Information

Contact [Curtiss-Wright](#) for ordering information