



AL8400

DATA ACQUISITION MULTIPLEXER



FEATURES

Laboratory Data Acquisition Applications

Various Signal Types Accepted:

- Analog
- Digital
- Time Code
- Audio

Time Division Multiplex (TDM) PCM Technology

- Up to 20 Mbps

IRIG 106 Compliant Output

Expandable Configuration

- Up to 128 Analog Inputs
- Up to 256 Discrete Inputs

Front Panel & Ethernet Setup and Control

- RS-232 and IEEE-488 Options Available

OVERVIEW

The AL8400 Data Acquisition Multiplexer accepts a variety of analog and digital signals and multiplexes them together into a single stream of digital data bits for recording, transmission or IRIG compatible decommutation. The unit utilizes standard sampling techniques and generates standard IRIG PCM telemetry formats. A standard Class I or Class II decommutator / frame synchronizer may be used to extract the data. Alternately, data may be ingested by a computer for storage and processing.

The unit is configured using a simple remote control program which requires a minimum of operator interaction. All Model AL8400 control and setup information passes through the micro-processor of the PCMGEN module. In order to keep the front panel menu driven display simple, the software is configured according to the data acquisition modules that are installed. Separate documents are provided that describe, in detail, the installed modules. This document centers on the functionality of the chassis.

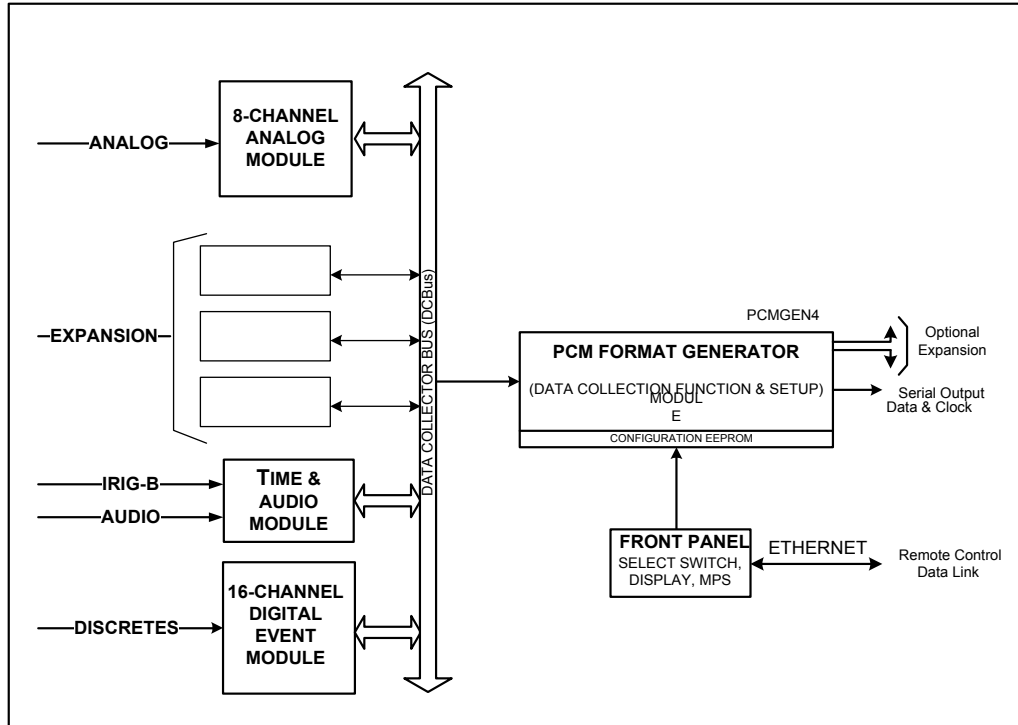


Figure 1: Overall Block Diagram

SPECIFICATIONS

Physical

- 5.25" high x 19" wide x 15.75" deep
- Rack mountable or stand alone
- 16 slots available for channels per chassis
- Weight: 35 lbs. maximum
- Power: 110-240 VAC, single phase 57-63 Hz, <75 watts

Environment

- 0° to +40° C operating temp (Chassis only).
- Adhere to individual module specifications when configuring system**
- 15 to 95% relative humidity
- Sea level to 10,000 feet altitude

Sampling

- Controlled by Frame Rate & specific module requirements over the range of 100 to 500,000 s/s

Acquisition Modules Support

- Analog Signals: Unipolar or bipolar, in various voltage ranges, single ended or Differential
- Discrete or Event Digital Signals: Single ended or Differential
- Voice Signals: 3k Hz bandwidth
- Time Code Signals: IRIG and NASA codes, AM 1k Hz carriers
- Serial Data Streams: Synchronous or Asynchronous TTL streams