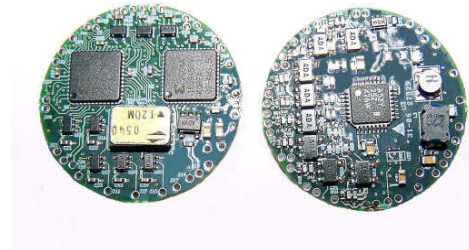




AL8000-101 Tactical PCM Encoder



1. FEATURES

- Low Power CPLD Based PCM Encoder (5V at 24mA)
- Optional bit rates up to 5M bps
- 8 analog, 8 discrete, 1 serial channel(s)
- Standard + 5Vdc Power
- Optional +7.2Vdc Supply Voltage
- Minimum Size and Weight
- 1" diameter PCB (max.)
- Meets IRIG-106 Standards
- 6 pole pre-mod filter

2. OVERVIEW

The AL8000-101 PCM encoder module is designed for applications requiring sub-miniature size, low weight, low cost and the ability to withstand harsh environments. It is suitable for high shock applications such as precision guided munitions, projectiles, missiles and other rugged telemetry applications. It is factory configured with CPLD based technology allowing the configuration to be reprogrammed to meet a variety of applications and is compliant with IRIG-106 Standards.

The module (pc board assembly) can be sold as an OEM product, in a custom package per customer specifications or in an integrated package with a low-power RF microwave transmitter.

For system applications where multiple encoders act as remote units, Apogee's line of rugged multiplexers can cost effectively combine PCM with a wide variety of other signals, such as video, MIL-STD-1553, Ethernet, Asynchronous data, etc. and provide one composite data stream for down-linking or recording.

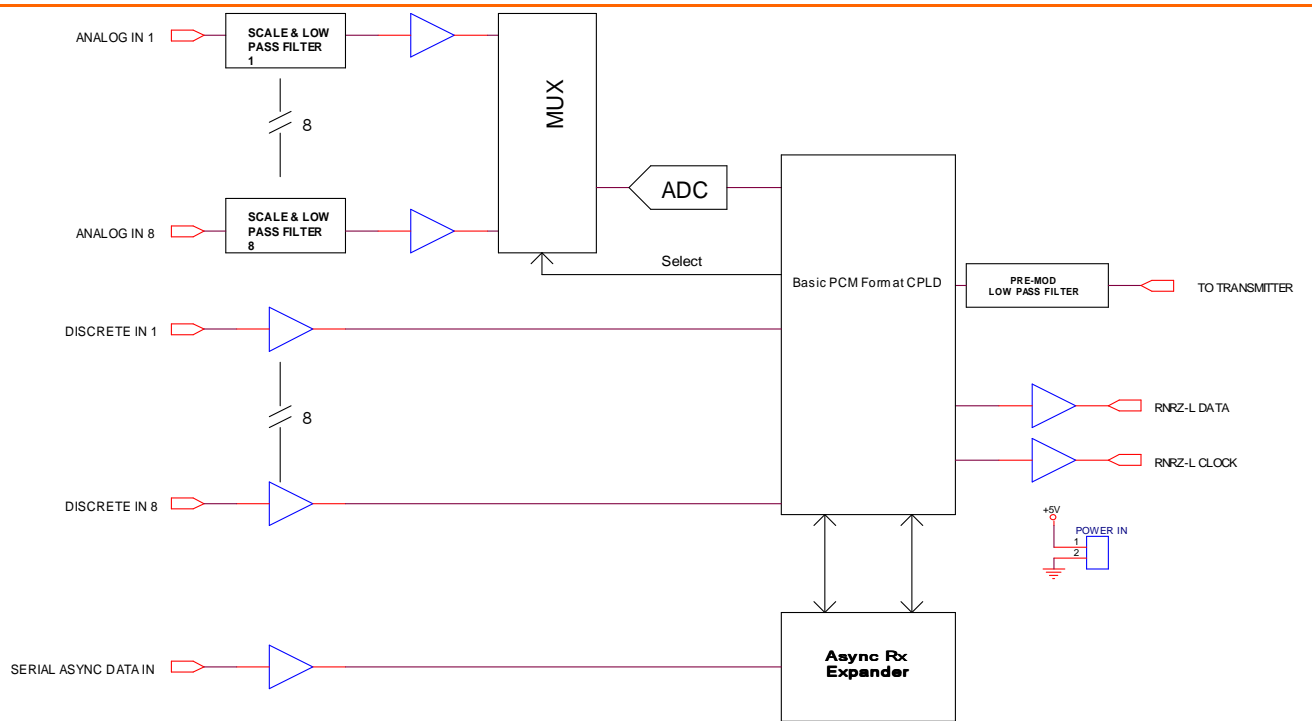


Figure 1: Model 8000-101 Overall Block Diagram

3. SPECIFICATIONS

GENERAL

- Dimensions: PCB, 1" diameter max.
- I/O Connections: Plated thru-holes
- Weight: < 1 oz.
- Input Voltage (conditioned): +5.0 Vdc, +/- 0.5V
- Input Current: <25 mA max.

PCM ENCODER

- Bit Rate: up to 5M bps
- Word Size: 12 bits per word
- Frame Size: up to 18 words per frame
- Digital Signal:
 - TTL Data and Clock Output
- 6 pole pre-mod filtered output
- Up to 4096 FR/SF
- Super commutation supported

ANALOG INPUT

- 8 Channels
- 10 bit resolution
- 0 to + 40V input range (specify per channel)
- Up to 5000 Samples/sec

DISCRETE INPUT CHANNELS

- 8 Channels
- Sample Rate: Up to 20,000 Sps
- Voltage Level: LVTTTL

SERIAL INPUT CHANNELS

- 1 Asynchronous Serial Input
- Data Interface: LVDS Differential
- Data Rate: up to 500k b/s

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