## PCM Encoder Features:

- **Programmable System PCM Bit Rates up to 20 MBPS**

- **IRIG 106 Compliant**

- **Rugged Modular Construction**

- **Available in various chassis sizes from 4 to 32 slots**

- **Stand Alone or Distributed System Operation**

- **Configured from a family of Input Modules matched to common Transducer types**

- **Analogue, Digital, Frequency and Storage Modules available**

- **Integral Solid State Recorder Modules with USB download port can be installed in the encoder chassis**

- **Constant Current and Constant Voltage Transducer Excitation is provided on Modules**

- **Programmable Gain**

- **Programmable Offset**

- **Programmable Filters**

- **Pre-modulation filter for RF Telemetry applications**

- **Compatible with Apollotek Telemetry Transmitters**

- **The Encoder is programmed through a PC USB Port**

- **Compatible with the Apollotek GDSmate Telemetry Environment Software package**
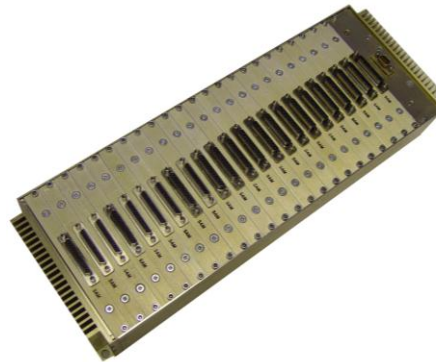
24 Slot Chassis   **6 Slot Chassis**

The ApolloDas 8600 Series is a new generation of flight qualified Modular PCM Encoders comprising a range of Signal Conditioning Modules, Control Modules and Power Supply modules.

Maximum use is made of modern circuit design and construction techniques to provide a high performance, compact and cost effective solution for Ejection Seat Trials and general Missile, Aircraft and UAV Flight Test applications.

Stand alone and distributed configurations are designed and manufactured by Apollotek.

Application specific packaging is an Apollotek speciality.

The Mechanical design of the ApolloDas 8600 series provides a proven and extremely rugged and compact module design. Each module is individually retained into the module housing which is constructed from precision machined parts.

The signal conditioning modules are interconnected to the control module through an intelligent rugged backplane assembly.

The Encoder is programmed using a high level GUI interface.

All programmable functions of the ApolloDas 8600 are performed through a bi-directional high speed serial interface port. Programmed signal conditioning and format data is stored in non-volatile memory.

The Apollotek GDSmate Telemetry Environment Software package and Apollotek 8000 Series Groundstations are ideal companions for this ApolloDas 8600 family of Airborne Instrumentation.

APOLLODAS 8600 SIGNAL CONDITIONING MODULES:

All ApolloDas 8600 Signal Conditioning Modules have one Analogue to Digital Converter per module to provide a versatile, high speed and low noise programmable PCM Encoder configuration. The following standard Signal Conditioning Modules are available. This range of ApolloDas 8600 Signal Conditioners is continually being expanded and updated. Please consult the factory for Signal Conditioning requirements not listed below.

- **SGM-X 8 Channel Strain Gauge Module**

  Provides per channel Constant Voltage Excitation
  Supports ¼, ½ and full bridge configurations
  Per Channel Programmable Gain
  Per Module Programmable 12-pole Filters

- **RTD-X 8 Channel RTD Module**

  Supports ¼, ½ and full bridge configurations
  Per Channel Programmable Gain
  Per Module Programmable 12-pole Filters

- **VMM-X 8 Channel Vibration Transducer Module**

  Provides per channel Constant Current Excitation
  Per Channel Programmable Gain
  Per Module Programmable 12-pole Filters

- **LAC-X 8 Channel Linear Acceleration Module**

  Provides per module Constant Voltage Excitation
  Per Channel Programmable Gain
  Per Module Programmable 12-pole Filters

- **ACM-X 8 Channel Acoustic Noise Module**

  Provides per module Constant Voltage Excitation
  Per Channel Programmable Gain
  Per Module Programmable 12-pole Filters
  Sample rates up to 100 KHz per channel

- **TCM-X 18 Channel Thermocouple Module**

  Provides Electronic Cold Junction Compensation within the module. Gain matched to Thermocouple Type Thermocouple wire termination on board the module. Internal chassis temperature is available as a parameter

- **SVM-X 16 Channel Single Ended Voltage Module**

  Accepts bi-polar Voltage Inputs
  Provides per module Transducer Excitation
  Fixed Gain per Analogue Channel
  Programmable 12-pole Filters per Analogue channel

- **DDM-X 8 Channel Differential Voltage Module with 12 Digital Inputs**

  Programmable Gain per Analogue Channel
  Programmable 8-pole Filters per Analogue channel
  Selectable threshold for Digital Inputs

- **DIM-X Discrete Digital Input Module**

  Provides 24 discrete digital inputs per module

- **PEZ-X Transducer Matched 8 Channel Module**

  Specifically configured to interface to the Endevco 8514-10 transducer. Provides excitation and signal conditioning. Provides adjustable input offset

- **PES-X 4 Channel Charge Amplifier Module**

  4 channel charge amplifier module provides excitation and interface specific to the B&K Type 4504-A shock and vibration transducer. Other Charge transducers can be supported

- **FPM-X Two Channel Frequency / Period Module**

  Provides two channels of binary counting data which can also be gated to operate as a period counter

- **VCM-X Single Channel Video Compression Module**

  Provides a single channel analogue PAL or NTSC input port and applies programmed digitisation and video compression prior to insertion in the PCM Datastream

- **SRM-X Dual Channel Synchro / Resolver Module**

  Provides an electronic interface to standard 11 – 26 V Synchro and Resolver angular position transducers

- **ABM-X Four Channel ARINC 429 Bus Monitor Module**

  Provides an interface to High & Low speed ARINC 429 buses and decodes the data from programmed labels

- **MBM-X Dual Mil-Std 1553 Bus Monitor Module**

  Provides an interface to a Dual Redundant Mil-Std 1553 bus and decodes messages and data from bus traffic

- **SUM-X Four Channel Serial Input Module**

  Provides interfaces for four synchronous serial RS422 or RS232 inputs at baud rates up to 115 KBPS

- **SBM-X Four Channel Serial Input Module**

  Provides interfaces for four asynchronous serial RS422 or RS232 inputs at baud rates up to 115 KBPS and provides FIFO buffering and status

- **SBM-PSI Four Channel Serial Input Module**

  Module provides intelligent interface to the PSI 9010 Pressure Scanner. Scannivalve option available

- **TCR-X Time Code Reader Module**

  Provides an IRIG-B time code reader and time word insertion into the PCM Frame. Includes a 19K2 baud GPS interface. Integrated GPS Reader Option available

- **SSM-XXX Solid State Memory Module**

  Provides 8 GBytes of non-volatile Flash Memory per module. Data download through USB port