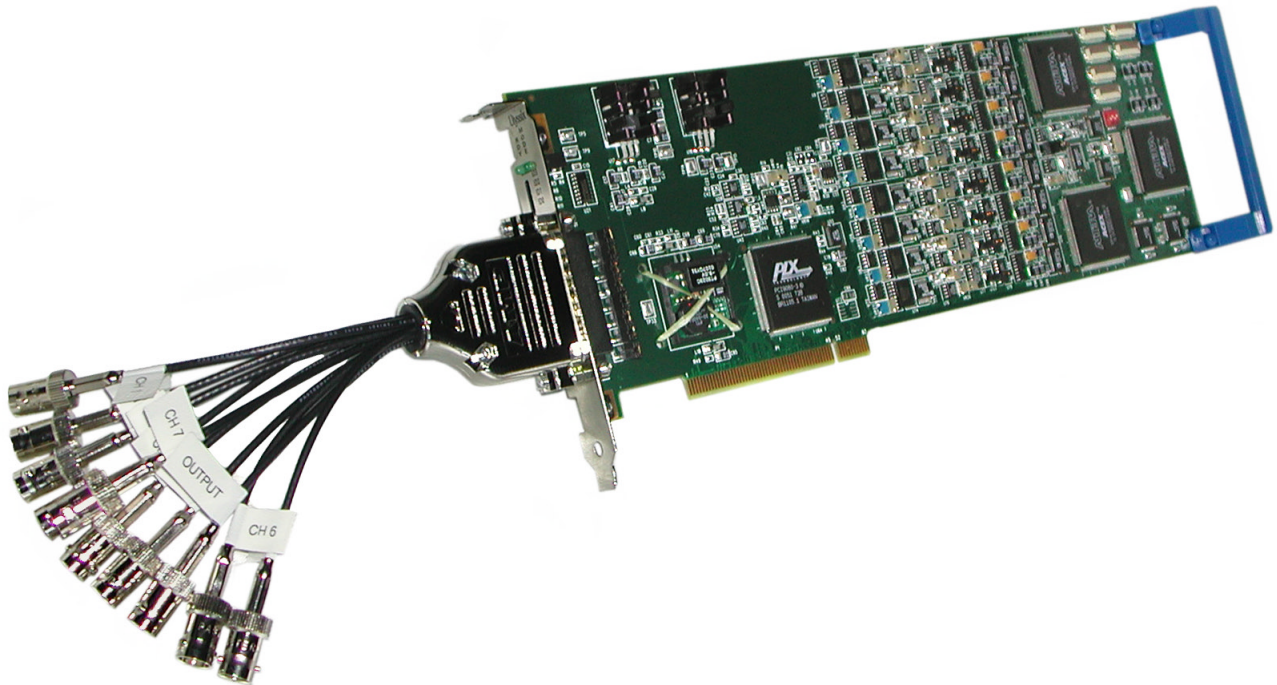


The **HalluxPCM-PCI** PCM Frame Generator is a PCI based general purpose PCM Encoder. It creates an NRZ-L or RNRZ-L PCM frame encoded with up to eight channels of preconditioned data. Output bit rates up to 10Mbps are supported. PCM output can be used for digital recording or transmission. The HalluxPCM-PCI can be used as a companion product to the **Syrinx-PCI** Digital Baseband Demodulator or as a stand alone PCM Encoder. The DSP (Digital Signal Processing) based design is implemented in state-of-the-art FPGAs (Field Programmable Gate Arrays) allowing for rapid enhancements or customization.

Analog input signals are digitized by eight independent analog to digital converters. For each channel, the user selects the sample rate, the input voltage level and input offset. The HalluxPCM-PCI automatically creates a bandwidth efficient PCM frame. Analog Input, PCM Data and PCM Clock are available on BNC connectors.

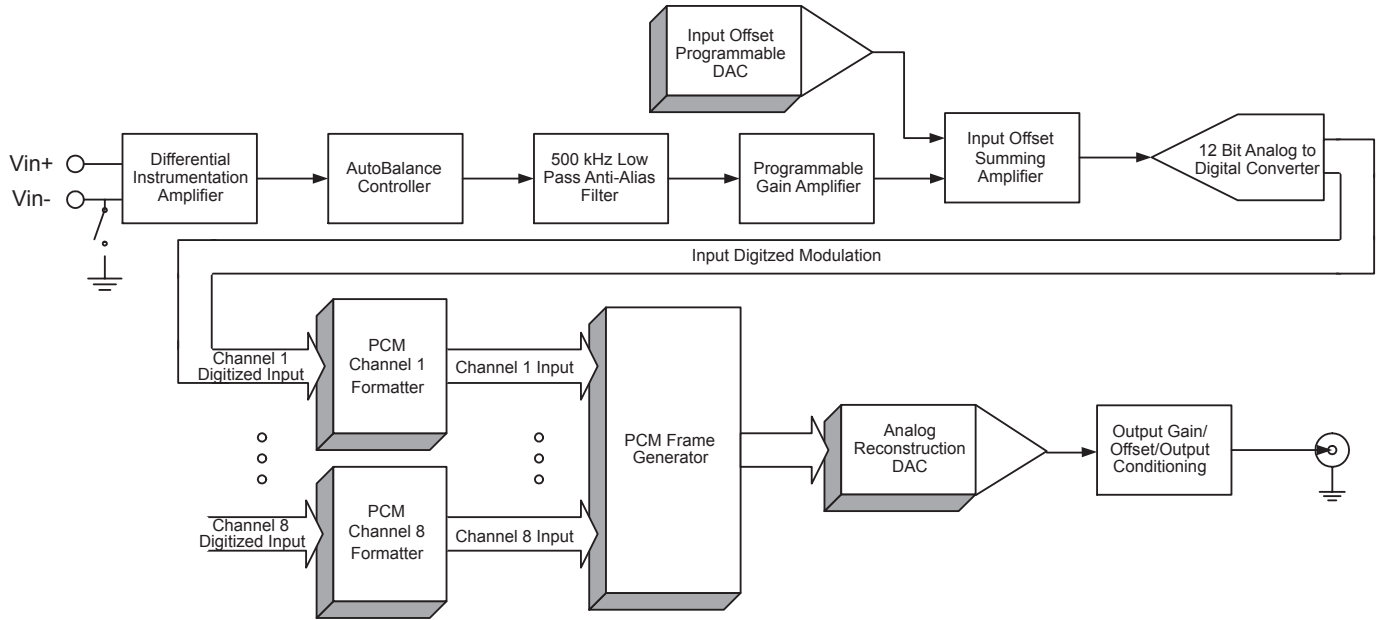
The user-friendly Windows based Graphic User Interface (GUI) software allows for simple setup and operation of the HalluxPCM-PCI card. A Windows based DLL is also available for customer specialization.



FEATURES

- Up to eight analog inputs per card
- Bit Rates up to 10 Mbps
- NRZ-L or Randomized RNRZ-L output coding
- Independent 12 bit digitizer for each analog input
- Sample rates up to 156kHz
- Input data voltage range of 0.5 Vpp to 5 Vpp, selectable
- Standard TTL Output, 50 Ohm Driven
- User friendly Windows based setup and operation
- PCI form factor

SPECIFICATIONS



HalluxPCM-PCI Block Diagram

SPECIFICATIONS

Product Specifications

- **PCM Output Format** NRZ-L or Randomized RNRZ-L PCM data and clock with 0° or 180° bit clock, program selectable
- **Maximum Output Bit Rate** 10 Mbps
- **Word Size** 16 bits per word, 32 bit sync pattern
- **Max Frame Size** 2048 words
- **Output Bit Rate** Binary sub-multiples of 80MHz clock, 10 Mbps max
- **Data Sample Rate** User selectable, binary divisions of the 80 MHz system clock from 76.294 Hz to 156.25 kHz
- **Operation** The PCM Generator allows the user to build a PCM frame containing data from up to eight individual analog inputs. The bit rate of the PCM output is determined by the sample rates of each data channel.
- **Analog Inputs per card** Eight (8)
- **Independent Digitizers per card** Eight (8)
- **PCM Output Level** Standard TTL Output, 50 Ohm Driven
- **Input Configuration** Single ended or differential using BNC connectors, Jumper selectable
- **Input Voltage Range** 0.5 V_{pp} to 5.0 V_{pp}, selectable
- **Maximum Safe Input** ± 40 VDC

Physical Specifications

- **PCI Form Factor** 32 bit PCI form factor, +5 Volt System
- **Interface Connectors** DB25 connector with breakout cable to individual BNC connectors for Analog Inputs, PCM Output, and PCM Clock
- **Manufacturing** The design utilizes Surface Mount Technology (SMT), manufactured with robotic assembly techniques to IPC-610B Class 2 manufacturing standards
- **Temperature Range** Operating: 0°C to 50°C
Storage: -20°C to 60°C
- **Power Consumption:** +5V 1.0 Amp
+12V 0.9 Amp
-12V 0.0 Amp

Ordering Information

- HalluxPCM-PCI-01 PCM Frame Generator

Specifications subject to change without notice.