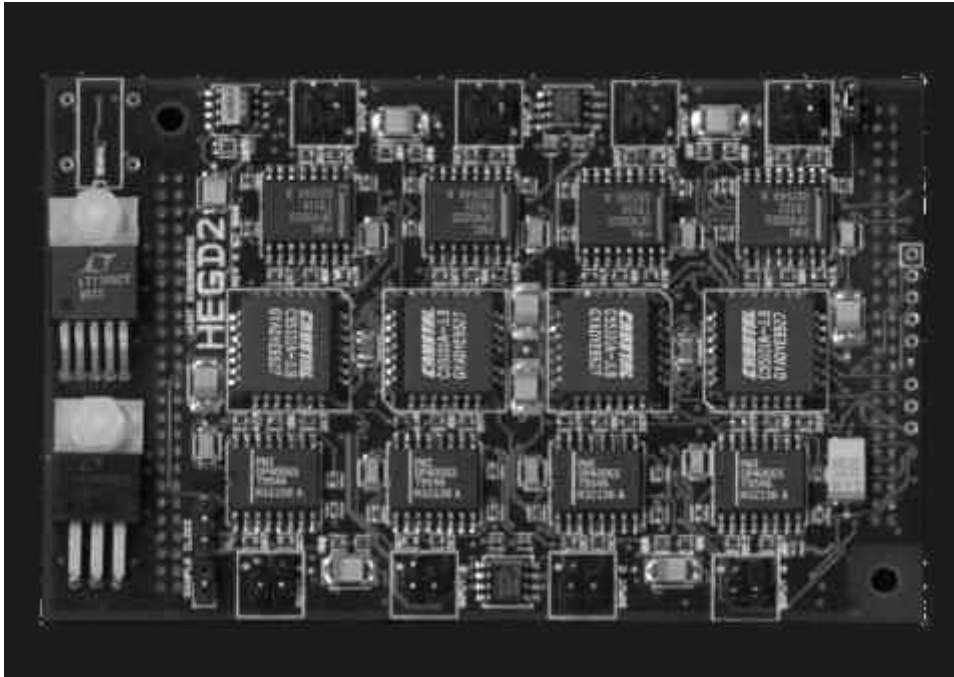


‘one of the many tools we have to help us build your system solution’



HEGD2 100Khz 16bit A/D GDIO Module

- GDIO module, compatible with GDIO and HERON module carriers.
- 4 channels of 16 bit A/D at a maximum 100Ksps each channel, or 8 channels at 50Ksps each
- Choice of differential or single ended I/Ps
- Input filters with parameters selectable at time of ordering
- Choice of internal or external sample clocks from DC to 100KHz
- Multiple modules can use common clocks

The HEGD2 uses four separate CS5101A 16 bit A/Ds to provide multiple channels of A/D data to a GDIO interface. The use of a common internal or external clock provides a wide flexibility of sampling modes. Multiple modules can be interconnected to ensure simultaneous sampling.

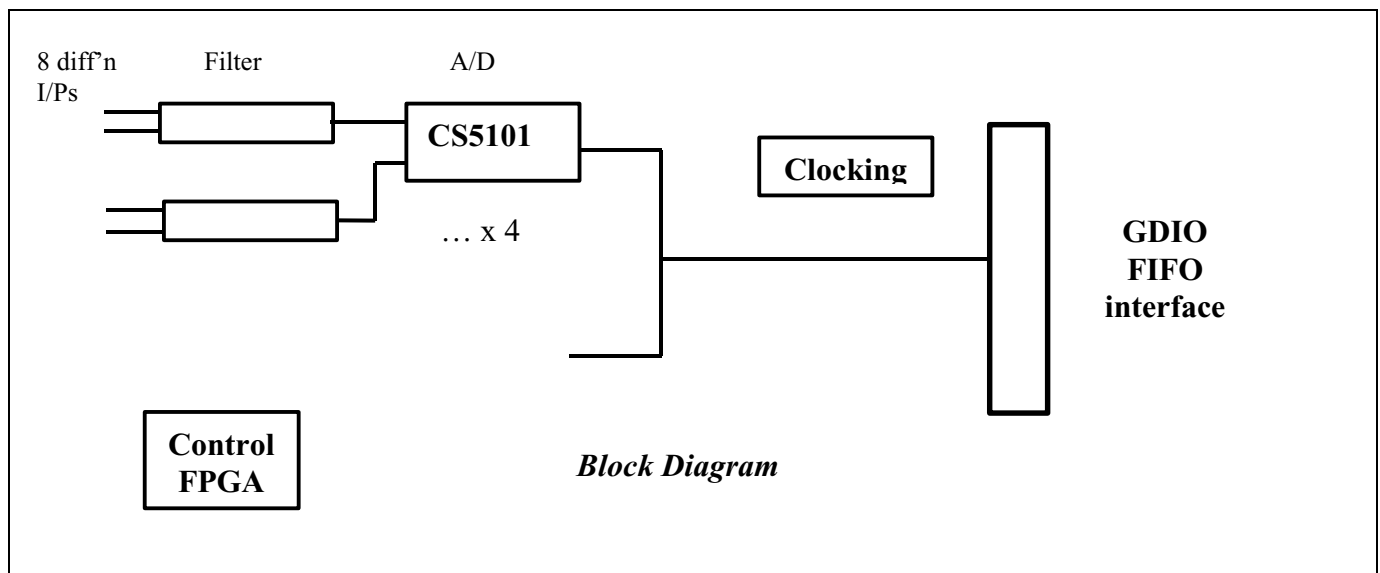
Choice of 4 simultaneously sampled channels at up to 100Ksps, or 8 channels at up to 50Ksps, where two groups of 4 channels are alternately sampled. Each group of 4 is sampled simultaneously, half a sample clock before other group of 4 channels.

For each enabled channel a sample clock edge will cause two 16-bit values to be written into the FIFO on the GDIO interface. The first 16 bits will be the sample value and the next 16 bits contain channel information. The other side of the GDIO FIFO must be read continuously to prevent data loss.

Separate input connectors provide inputs to the CS5101A. Unity gain protection buffers protect the inputs to the module.

The GDIO module measures 4.0inches x 2.5inches and is mounted above the GDIO/HERON carrier with a board to board spacing of 5mm. The maximum height of components above the module is 19mm.

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Technical Specification

Processor:
None

Memory:
None

Host Bus:
GDIO module interface, compatible with HERON

Maximum Dimensions:
4.0inches x 2.5inches(100mm x 64mm)

Power requirements:
5V Max: 1.0A
 Typ: 0.5A
12V Max: 1.0A

Sampling Speed:
DC to 100KHz

Input Range:
+- 4.5V into 1K
or specify alternative with your order

Input Filter:
50Khz low pass 2nd order or specify alternative with your order.

Software

The HEGD2 writes sample data into the GDIO FIFO. The FIFO must be continuously read to guarantee that data is not lost. If the FIFO becomes full the HEGD2 will simply discard data items until the FIFO can accept more data. There are no control functions that are performed by software.

Applications

Application areas are numerous and include many traditional DSP applications.
e.g.
Data acquisition
SONAR/RADAR
High energy physics
Imaging

Related Products

HEPC8 PCI HERON module carrier

HEPC6 C6000 evaluation card
HETBASEIO GDIO to TIM-40 interface.

HEBASE104 GDIO to PC104 interface.

HERON1-C6201, DSP module
HERON1-C6701, DSP module
HEGD1, 16 ch 12 bit 3 MHz A/D
HEGD5, 4 ch 16 bit 230Khz D/A
HEGD9, 4ch 12 bit 40Mhz A/D
Contact factory for latest

Ordering Information

HEGD2

No options except for filter parameters, and sample rate oscillator.

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