## D.Module.AD7722

Revision 1.0





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(original size)

## 16 Bit Sigma-Delta Converters

- 6 fully differential Inputs
- Single Resistor programmable Input Gain
- **High DC-Accuracy** 
  - Sampling Frequency 12.5 to 200 kHz programmable
- Synchronous Sampling of all input channels maintains phase relationship
- up to four boards can be cascaded and synchronously sampled
  - Interrupt and DMA-driven data transfer
- **Typical Applications:** - Vibration Analysis
  - Power Line Monitoring
  - Multi-Channel Speech Processing

The D.Module.AD7722 is a high-precision Analogto-Digital converter board, suitable for all members of the D.Module DSP board family. It's six input channels are DC-accurate and fully differential. Input Gain is set by a single resistor. The oversampling converter architecture doesn't require high-order analogue anti-aliasing filters, hence accurate phase information of the input signals is preserved.

It's excellent DC, phase and dynamic characteristics make the board a preferred choice for a variety of applications like multi-channel speech processing, power-line metering, vibration analysis, and data logging. Up to four boards can be cascaded to a 24 channel, synchronously sampled, system. All channels can be read by a single block transfer, minimizing the CPU load for data acquisition.

## **SPECIFICATIONS**

Power Supply	Analog:+/- 5 V +/- 5% , TBD mA	
	Digital :3.3V	
Operating Temperature	-40+85°C (industrial grade)	
Sampling Frequency	programmable: 12.5, 16.6, 20, 25, 33, 50, 100, 200 kHz, or external clock	
Sampling	synchronous sampling of all channels	
Group Delay	215 μs at 200 kHz sampling frequency	
Inputs	6, fully differential, +/- 2.5V full-scale input	
Input Gain	single-resistor programmable, 0+20 dB	
Resolution	16 bits	
THD & N:	TBD	
SINAD	TBD	
Digital Interface	16 bits wide data bus, two programmable interrupt outputs	
High Level Input Voltage	min. 2V, max. 5.2 V	
Low Level Input Voltage	min0.2V, max. 0.8V	
Size	max. 85 x 58.5 x 15 mm	



## ORDERING INFORMATION

D.Module.AD7722-6	Six Channel Analog-to-Digital Converter Board
Options	-1 (single channel)
	-2 (dual channel)
	-4 (quad channel)
	-5V (5V digital interface)
DS.AD7722	Development Support Base Package incl. Support Software, User's Guide and Manuals

Distributed and supported locally by	
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