

# ANALOG TO DIGITAL CONVERSION STUDY BOARD

Reference : PLATCAN



**Implement an experimental protocol using a sample-blocker and / or an Analog-to-digital converter (ADC) to study the influence of different parameters on the digitisation of a signal**

This plate makes it possible to study the influence of the various parameters on the digitisation of a signal:

- sampling frequency
- number of conversion bits
- The 12V power supply board is used to digitize an analog voltage between 0 and 5 V applied at the input using an analog-to-digital converter.
- The digitised output voltage is then converted via a DAC to view the output (with an oscilloscope or a data logging system) of the effects of the scan parameters on the quality of the conversion.
- A rotary selector allows you to choose between 4 predefined clock frequencies or the frequency of a TTL signal delivered by an external function generator (not supplied).
- A series of 8 switches allows you to select the number of conversion bits between 1 and 8 bits and thus to display the influence of this parameter on the scan.
- For very low frequency signals, a series of 8 LEDs are used to visualise the 8 bits of conversions in real time.

Technical characteristics:

- Power supply: 12 V continuous on banana sockets
- Dimensions: 195 x 125 x 38 mm