

IPS USB V1.0 DATA ACQUISITION CARD

IPS USB V1.0 card contains high speed 16-bits A/D converter, eight independent input and output digital lines and serial interface for e.g. interprocessor communication with other parts of final complete device. It is appropriate to **embedded** system designs.

Some important features of IPS USB V1.0 card:

- Number of measuring channels 1, 2 or 4 software selectable
- Input voltage range 0V to +5V
- Safe input voltage max. $\pm 10V$
- Low-pass anti-aliasing filters on channels 0 and 1 two pole Butterworth filters with 3dB bandwidths of 200kHz ($\pm 5\%$)
- Low-pass filters on channels 2 and 3 RC type, with bandwidths of 5kHz ($\pm 5\%$)
- DC gain error max. $\pm 0.25\%$
- ADC resolution 16-bits
- ADC output data code binary two's complement
- Sampling frequency range 1250 to 500000 samples / sec / channel
- Input impedance $> 1M\Omega$
- Differential nonlinearity max. ± 1 LSB
- Integral nonlinearity max. ± 3 LSB
- Total noise of analog channels max. ± 5 LSB (p-p)
- Storage temperature range $-20..85^{\circ}C$
- Operating temperature range $0^{\circ}C$ do $70^{\circ}C$
- Supply voltage +5.0 do +5.1VDC (+5.1VDC – recommended)
- Power consumption max. 1.5W
- Programming and data transmission via Universal Serial Bus Revision 2.0 interface (USB 2.0)
- Digital lines levels LVCMOS (3.3V), +5V input signals tolerant
- Serial interface programmable, of type RS232C using LVTTTL signal levels
- Load carrying ability of digital outputs 1 LVTTTL
- Dimensions 93mm x 63mm
- Drivers, DLL's and test programme for Windows[®]XP and Windows[®]Vista, built in C++ Builder environment (Delphi, BC++ and VC++ languages compatible)