

# USB Devices with 24 bit Resolution

- Isolated DAQP modules
- Easy to install on your computer
- 24 bit resolution
- 204.8 kS/s per channel, simultaneous sampling
- Synchronous CAN interfaces and counter/digital inputs
- DEWESoft-7-SE and OPT-CAN included



Add your choice of signal conditioning,  
A/D board(s) and software to complete these systems

Specifications	DEWE-50-USB2-8
<b>Analog input</b>	
Number of channels	8 (simultaneously sampled)
Measured values	According installed DAQP modules
<b>Internal A/D system</b>	
Resolution	24 bit
Type of ADC	Sigma-Delta
Sampling rate	204.8 kS/s
-3 dB bandwidth	76 kHz @ 204.8 kS/s (consider possible limit of DAQP module)
Accuracy	±0.1 % of range, ±0.5 mV
Signal to noise @ fs<1000 Hz	< 100 dB
Crosstalk	< 100 dB
<b>Counter/Digital inputs</b>	
Number of channels	2 counters or 6 digital inputs (per software each counter can be selected to be 3x digital input)
Counter modes	Event counting, encoder input, period, pulsewidth, duty cycle, frequency measurement
Resolution	32 bit
Time base	102.4 MHz
Signal levels	TTL/CMOS
Input voltage protection	30 V
<b>CAN inputs</b>	
Number of channels	2
Specification	CAN 2.0B, up to 1 MBaud
Physical layer	High speed
<b>Environmental</b>	
Operating temperature	0 to 50°C
Storage temperature	-20 to 70°C
Relative humidity	95 % non condensing @ 60°C
Vibration	tbd
Shock	tbd
<b>Processing</b>	
System	Requires PC based system with DEWESoft software
Interface	USB 2.0
<b>Power requirements</b>	
Supply voltage (max.)	10 to 36 V <sub>DC</sub>
Typical power consumption	Typ. 20 W (5 W internal A/D system + DAQP modules)
<b>Physical</b>	
Dimensions (L x W x H)	230 x 181 x 104 mm (9.06 x 7.13 x 4.09 in.)
Weight	Typ. 3 kg (2.5 kg + DAQP modules) 6.6 lb. (5.5 lb. + DAQP modules)
<b>Software</b>	
Displays	Recorder, Scope, FFT, 3D Waterfall FFT, Octave, ...
Triggers	Edge, Filtered Edge, Window, Pulsewidth, Slope, FFT, ...
Online standard mathematics	Formula editor, FIR-, IIR-, FFT-filter, basic statistics, reference curve
Online special mathematics	Human Body Vibration, Order Tracking, Rotational & Torsional Vibration, Sound Level, Frequency Response Function
<b>System options</b>	
<b>Option</b>	<b>Description</b>
50-8-OUT-5	8 BNC connectors on back panel, ±5 V output of DAQP-modules
50-8-SYNC	Synchronization option for two DEWE-50-USB2-8. Allows using max. two units as a 16 channel system, synchronization cable 50-8-CBL-SYNC-x needs to be ordered additionally.

## Analog Input

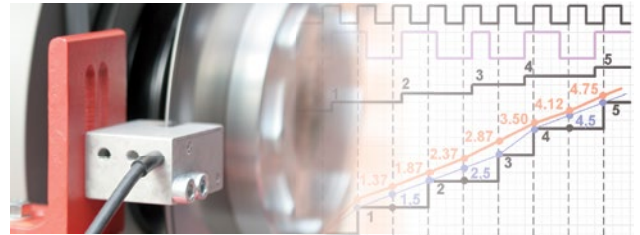
The internal A/D system offers eight analog inputs, each has its own sigma-delta A/D converter and is sampled at up to 204.8 kS/s at 24 bit resolution. Anti-aliasing filters are included for each channel.

The **DEWE-50-USB2-8** offers eight slots for high performance DAQP isolated signal conditioning modules. Thus any analog sensor can be connected.



## Counter/Digital Input

There are Lemo sockets where each can either be used as one counter/encoder input or as three digital inputs – this is a software selection and can be set individually for each socket. Thanks to the special DEWETRON technology, the counter/digital inputs are acquired absolutely synchronously to the analog channels. DEWETRON counters are able to perform



- Basic counting
- Gated counting
- Up/down counting
- Duty cycle
- Frequency measurement
- Pulse width measurement
- Period time measurement
- Two pulse edge separation



## CAN Interface

There are two high speed CAN interfaces which are able to acquire data from vehicle CAN – or vehicle OBDII interface – as well as from any sensor outputting CAN data.

Alternatively DEWETRON CPAD2 modules can be connected to a CAN interface to acquire quasi-static thermocouple, RTD, voltage or current signals.

## SYNC Interface

A SYNC interface enables combination of two units to a 16 channel system.

