ADwin

Real-Time System
ADwin-X-A20

ADwin systems are used by engineers and scientists for data acquisition, automation and Real-Time control applications. ***ADwin*** always provides a very accurate, precise and deterministic timing, with a high speed process execution.

ADwin-X is the newest member of the ***ADwin*** Real-Time systems family. It is compact and is designed for OEM applications to be used inside machines and devices. Like all ***ADwin*** systems it executes a fast, robust and flexible Real-Time code.

There are standard versions of *ADwin-X, as well as* fully customized versions for OEM series applications.

ADwin-X is free programmable by the user. The software of the system can be designed using the ***ADbasic*** tool chain or Matlab® /Simulink® and it can be adapted just in software for many kinds of applications and solutions. For the data exchange with a PC. all drivers are available for the ***ADwin-X***.

In general, ***ADwin*** offers more than 25 years of experience in automation and deterministic Real-Time applications. With software solutions since 1987, and with ***ADwin*** hardware systems since 1992, many thousands of users and applications worldwide rely on these precise and robust systems.

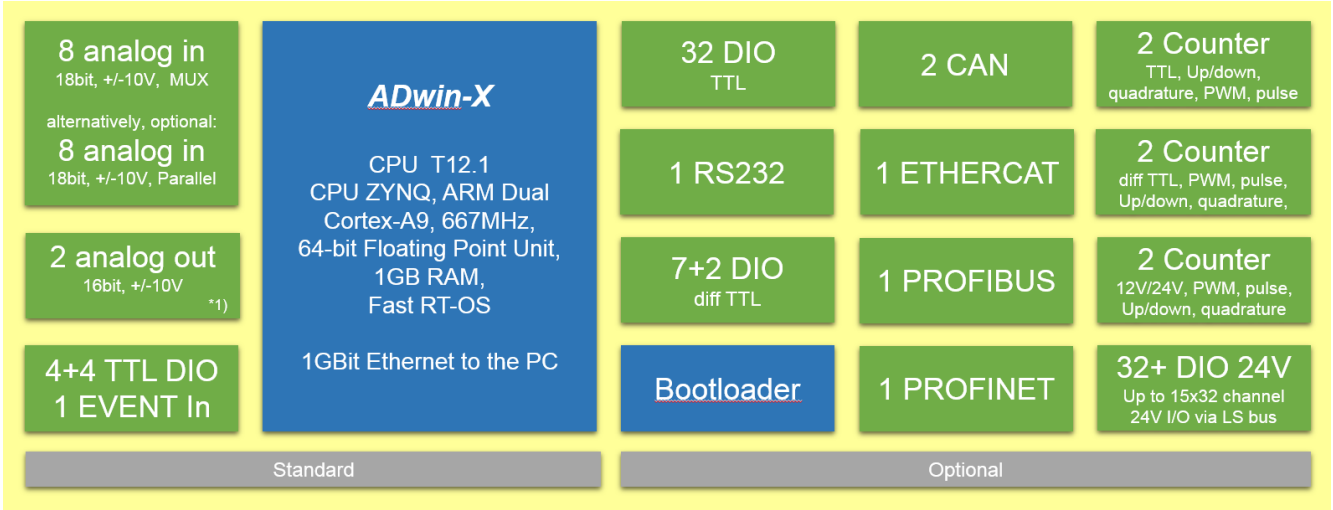
ADwin systems are the core of various test stands, machines and scientific experiment controls.

Application Fields

- Test stand control and data acquisition
- Automotive and Aerospace test stands
- Dynamic component testing
- Material endurance tests
- Fast machine control applications
- Scientific and industrial research
- Production line automation systems
- Laboratory and mobile systems
- EOL – End of Line testing

Real-Time Functions

- Intelligent data acquisition
- Fast digital closed loop controller
- Multi axis controller, PID and others
- Online analysis of measurement data
- Complex trigger applications
- Online data reduction
- Signal generation, arbitrary, adaptive



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Standard version

- CPU: XILINX ZYNQ™ with Dual-Core ARM Cortex-A9, 64-Bit FPU (double precision), 32 Bit Integer, 667 MHz, 1 Gigabyte main memory for program code and measurement data
- Ethernet interface (1000Mbit/sec) for PC communication
- 8 analog inputs 18 Bit, 5 µs, ±10V
- 2 analog outputs 16 Bit, ±10V
- 2 outputs comp. threshold 10 Bit, low speed
- 8 TTL digital channels inputs/outputs
- 1 trigger input (Event), pos. TTL logic
- serial LS-bus interface for module HSM-24V
- Dimensions: 215 × 125 × 47 mm

Ordering options

- 8 analog inputs wit parallel acquisition @ 5 µs for 8 channels
- Counter blocks, each with up/down counter (A/B, clock/dir), PWM counter or puls counter, 32 bit
  - 2 channels TTL
  - 2 channels differential TTL
  - 2 channels comparator inputs
- 1 SSI interface
- 32 TTL digital channels, inputs/outputs
- 8 digital inputs differential
- 2 digital comparator inputs
- 2 CAN interfaces (high speed)
- 1 RS232 interface
- 1 Profibus / Profinet / EtherCAT
- Bootloader for stand-alone operation
- Optional enclosure version for 19" rack

For Lab applications, desktop or DIN-rail

For 19” enclosures

CAS DATALOGGERS
Data Loggers For All Applications

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ADwin-X-A20	
ADwin-X-A20-M1	CPU ZYNQ, ARM Dual Cortex-A9, 667MHz, 64-bit FPU, 1GB RAM Ethernet to the PC, 1x Event, 8x TTL-IO, 1x LS-Bus (chassis 215x125x47) 8 analog inputs 10V 18-bit ADC (MUX 5µs) 2 analog outputs 10V 16-bit DAC (3µs), supply voltage range 10-28V

***ADwin-X-A20* Options**	
A20-F	**ADC TIME SYNCHRONOUS** (5µs for 8 analog inputs)
A20-D	2x CNT-D counters 32-bit up/down, period, clock, 1x SSI (7x RS422, 2x RS485)
A20-DCT	2x CNT-D counters 32-bit up/down, period, clock, 1x SSI (7x RS422, 2x RS485) 32TTL-IO, 2x CNT-T, FIFO 64-bit 12x IO 30V/2µs switching threshold 0-5V, 2x CNT-C
A20-COM	2x CAN, 1x RS232
A20-Profibus-SL	1x Profibus-DP slave interface, 9pin DSub
A20-EtherCAT-SL	1x EtherCAT slave interface, RJ45 connector
A20-Boot	Bootloader for stand-alone operation without PC

Accesssories	
A20-Mount	DIN-rail installation kit for the ***ADwin-A20*** system
A20-Pow	External power supply 12V DC for ***ADwin-A20***
A20-Pow-Mount	External power supply 12V DC for mounting on DIN-rail, for ***ADwin-A20***
HSM-24V	32 digital I/Os, 24V level, configurable in groups of 8 DIN-rail module for LS-Bus interface, screw-type connector

Software	
ADbasic	Fast real-time development tool for ***ADwin*** systems, **version 6**
ADlab	Driver for MATLAB ® (under Windows) for operation and visualisation of ***ADwin*** -systems
ADsim-T121	ADsim-T121 - Simulink® models in real-time under ***ADwin*** ***ADsim***-Desk, ***ADwin***-Blockset, ***ADwin***-C-Library