Universal Control Module

Model: AOH2.850.5112MX   Version: VI.0   Date: 2025.5

Product Features

- **High precision digital waveform control**

  The resolution is ≤20ns, and the maximum waveform data can be up to 320 bits.

- **Multi-channel programmable output**

  32 independent channels of programmable TTL waveforms (3.3V or 5V selectable/customizable); 8 independent channels of programmable RS422 differential waveforms; 4 independent channels of programmable output waveforms via BNC (Bayonet Neill–Concelman) connectors

- **Reference clock and trigger**

  Supports both internal and external clocks as the reference clock for the universal control module.

- **Data communications**

  Features both Ethernet and serial communication interfaces.

- **Input Detection**

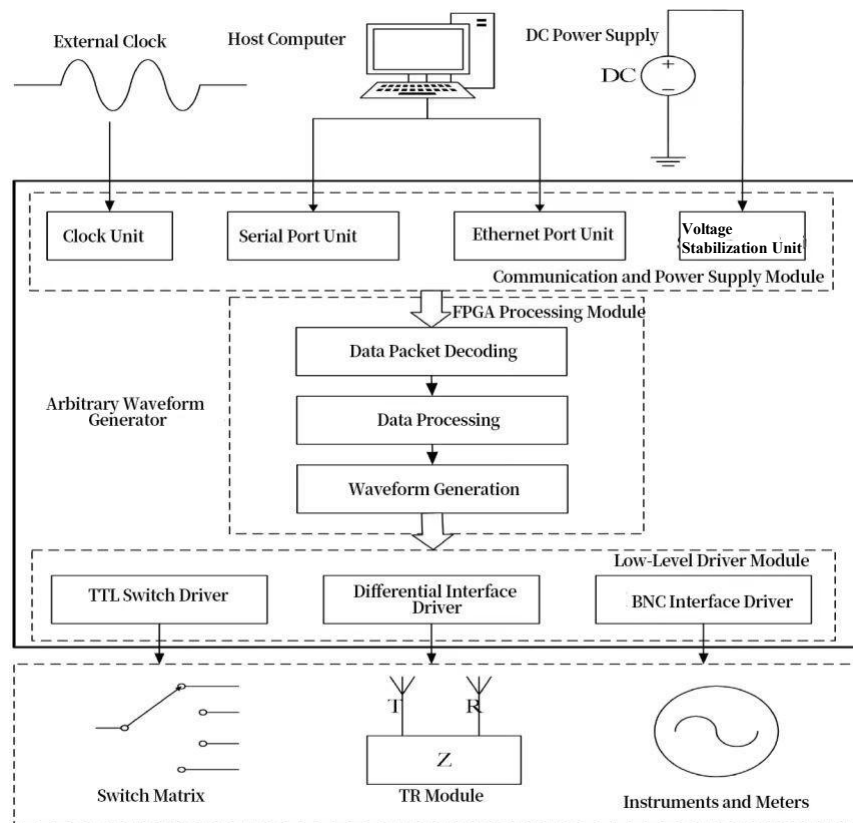 Equipped with single-bus temperature detection and TTL level detection inputs.

Application Scenarios

- SPI timing output
- Microwave component control
- Instrument trigger
- Switch control
- Scheduling of Automatic Test System Sequence
- Digital waveform simulation output
- single-bus temperature detection
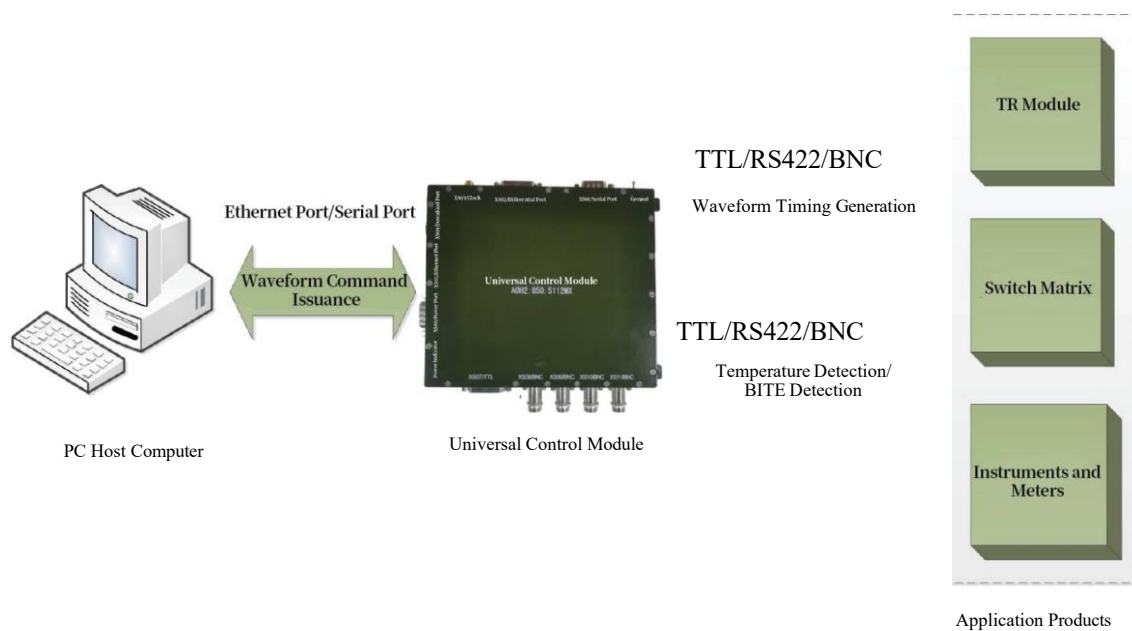- Antenna near-field test
- DBF timing control test

Picture of Real Products

Schematic diagram

Product Application Flowchart

Technical Parameter Table

Interface name	General-purpose wave control module	
	Interface form	**Interface Description**
Internet access	RJ45	10M/100M network port
Serial Port	DE-9P	The baud rate and parity bit are configurable
TTL driver interface	J30J-51ZKP	32 channels of TTL, with 8 programmable input/output directions
TTL driver interface	BNC-K*4	4 channels of TTL-5V output
Differential 422 interface	J30J-51ZKP	8 channels of differential input and 4 channels differential output
Download port	J30J-9ZKP	FPGA programming interface, capable of capturing input/output waveforms from individual pins
Supply electricity	DE-9P	Powered by 5V, with a stable operating current of ≤0.7A (pins 1-5: +5V; pins 6-9: GND)
External clock	SMA-K	An external clock can be connected as a reference
Pilot lamp	An LED light	Check if the power supply is functioning properly

Order information

Product Model and Description

Product Name: Universal Control Module
Product model: AOH2.850.5112MX
Product Description: This waveform control software supports a maximum output data width of 320 bits. It enables users to edit waveforms online and output the corresponding timing sequences. Output interfaces include differential, TTL, and BNC connectors. The TTL output voltage is configurable, with options for either 3.3V or 5V.

Recommended Accessories

The following are the input/output connector models required for the universal control module:

Connector model	Type	Quantity	Remarks
J30J-51TJL L=500	Rectangular connector	2	Differential/TTL interface
DE-9SJS	D-SUB 9 Motherboard	1	Power interface