Model: UT-5508AD

(Product Name: 8-channel AI/DI acquisition module)

Datasheet

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1. Overview

UT-5508AD supports 8-channel AI and DI acquisition. Adopt industrial-grade single-chip microcomputer; use international brand TI's 24-bit analog-to-digital conversion chip, high-precision reference source. Use software settings to select the analog signal voltage or current to be collected, no external resistors are required, and it is easy to use; the module communicates with the host computer through the RS-485 serial bus, the baud rate is set by software, and has a certain surge protection function; it is widely used in communication, data acquisition and control systems.
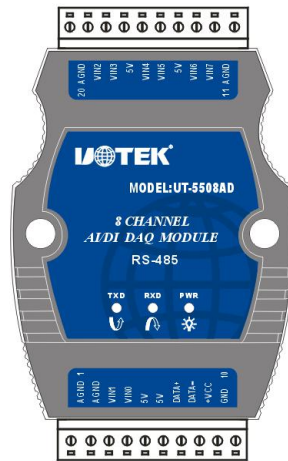
2. Technical Parameters

- Operating voltage: 12-24V (DC)
- Operating current: 100mA@12Vmax
- Operating humidity: 5~95%
- Operating temperature: -40~+85℃
- Storage temperature: -40~+85℃
- Sampling frequency: 25Hz (all channels)
- Resolution: 24 bits
- Acquisition accuracy: 0.5%
- Input channel: single-ended 8 channels (differential 4 channels)
- Input impedance: voltage 50KΩ, current 120Ω
- Communication method: RS-485
- Baud rate: 1200-115200 (bps)
- Communication protocol: MODBUS-RTU
- Lightning surge: power supply: differential mode 1KV

    RS-485: 600W protection
- Measuring range: differential input: voltage ±10V

    Single-ended input: voltage 0-10V, current 0-20mA

3. Indicator definitions

Name	Color	Function	Status
PWR	Red	Power Indicator	On
TXD	Green	Send indicator light	When the module sends data externally, the indicator light is on; when Send is completed, it goes out.
RXD	Yellow	Receive indicator light	When the module receives external data, the indicator light is on; when Receive is completed, it goes out.

4. Pin map

Pin no.	Name	Description	Pin no.	Name	Description
1	AGND	DI input low	11	AGND	DI input low
2	AGND	DI input low	12	VIN7	Input channel 7
3	VIN1	Input channel 1	13	VIN6	Input channel6
4	VIN0	Input channel 0	14	5V	DI input high
5	5V	DI input high	15	VIN5	Input channel5
6	5V	DI input high	16	VIN4	Input channel4
7	DATA+	485_A	17	5V	DI input high
8	DATA-	485_B	18	VIN3	Input channel3
9	+VCC	Power supply positive	19	VIN2	Input channel2
10	GND	Power supply negative	20	AGND	DI input low

8. Appearance