

## Model: UT-6801S-GW

(Product Name: Modbus Gateway)

# Datasheet



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## 1. Overview

UT-6801S-GW provides Modbus gateway functionality, which can convert data from multiple cascaded Modbus RTU Slaves into Modbus TCP messages and supports access control by multiple Modbus TCP Masters. It can also convert data from multiple Modbus TCP Slaves into Modbus RTU messages and support access control by multiple Modbus RTU Masters.

## 2. Major Functions & Features

- Made with a metal casing and designed for various installation methods, suitable for industrial control applications.
- Wide power input range (12~57.6VDC), suitable for different field power supply methods.
- One RS232/RS485/RS422 serial port available.
- Supports a wide range of baud rates from 300 to 921600bps, suitable for applications between different devices.
- Supports multiple operating modes: ModbusRTU Master/Slave, ModbusTCP Master/Slave.
- Supports Web firmware upgrade, convenient for special applications in different situations.

## 3. Technical Parameters

Processor	32-bit LX6 240MHz microprocessor
Memory	520K
Ethernet interface	10/100M (embedded with 1.5KV electromagnetic isolation) adaptive MDI/MDI-X Ethernet interface, RJ45 interface
Serial port	RS-232, RS-485, RS-422
Port	7-pin 5.08 pluggable terminal block
Indicator light	Power indicator PWR, operation indicator RUN, serial port transmission and reception indicator DATA.
Power interface	DC-005 DC jack or 3-pin 5.08 terminal block power supply mode, built-in reverse connection protection to prevent damage to equipment caused by positive and negative connection errors
Power supply range	DC12~57.6V
Function button	One factory reset button RESET
Maximum power consumption	12V@160mA
Casing	Metal casing, protection level IP30
Installation method	Default Din-rail mounting, fixed plate installation (wall-mounted optional)
Operating environment	Storage temperature: -40~85 ° C Operating temperature: -40~85 ° C Relative humidity: 5%~95% (non-condensing)

Altitude	Altitude: 0~4000m
Dimensions L × W × H	Size: 100mm × 80.8mm × 30mm (excluding installation components)
Net weight	Weight: 248g

## 4. Software Parameters

Protocol support	ARP, IP, ICMP, UDP, TCP, HTTP, DHCP, MODBUS protocols.
Configuration method	Web browser, VCOM Utility (Virtual COM Windows only)
Operating mode	ModbusRTU Master/Slave, ModbusTCP Master/Slave
Baud rate	300-921600bps
Data bits	5, 6, 7, 8
Stop bits	1, 2
Parity check	None, Odd, Even
Flow control	RTS/CTS, DTR/DSR, XON/XOFF (only RS-232)

## 5. Certification standards

CE, Rohs, Reach

### Safety requirements

<b>Standard requirements</b>	Compliance with IEC/EN 62368-1 regulations.
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### EMC test

Project	Indicator Requirements	Reference standards
Conducted Interference	CLASS A	EN55032
Radiated Interference	CLASS A	EN55032
EFT	Signal Port: 1kV, repetition frequency 5kHz; Tr/Th: 50ns	IEC61000-4-4

	Criterion: B	
ESD	Contact Discharge 6kV Air Discharge 8kV Criterion: B	IEC61000-4-2
CS	Intensity: 3V Frequency Range: 150kHz~80MHz Criterion: A	IEC61000-4-6
RS	Field Strength: 3V/m Frequency Range: 80MHz~2.7GHz; Criterion: A	IEC61000-4-3
SURGE	Power Supply: 1kV (line-to-line) 2kV (line-to-ground) 1.2/50 Signal: 0.5K (line-to-line) 1kV (line-to-ground) 10/700 Criterion: B	IEC61000-4-5

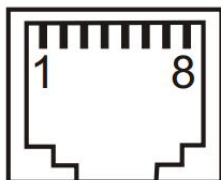
## 6. Indicator definitions

Name	Color	Function	Status
PWR	Red	Power indicator light	Constantly on when powered, off when power is cut
RUN	Green	System operation indicator light	0.5s on, 0.5s off alternating flashing
DATA	Green	Serial port data transmission/reception indicator light	Blinking with data transmission, off without data transmission

## 7. Interface definitions

### 1. Ethernet RJ45 Interface Definition

The pin definitions for 100Base-T are shown in the following table.

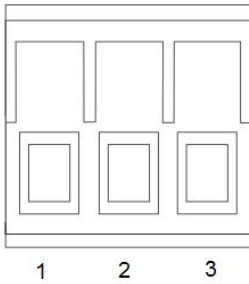


No.	MDI signal	MDI-X signal
1	BI_DA+/TX+	BI_DB+/RX+
2	BI_DA-/TX-	BI_DB-/RX-
3	BI_DB+/RX+	BI_DA+/TX+
4	-	-
5	-	-
6	BI_DB-/RX-	BI_DA-/TX-
7	-	-
8	-	-

Note: "TX±" refers to the transmission of data ±; "RX±" refers to the reception of data ±; "-" indicates

unused.

2. Power Interface Terminal Definition:



5.08 terminal block	Power Interface
1	Power Supply Positive Pole V+
2	Connect to Ground (PGND)
3	Power Supply Negative Pole V-

3. 7-pin 5.08 Terminal Serial Port Interface Definition:

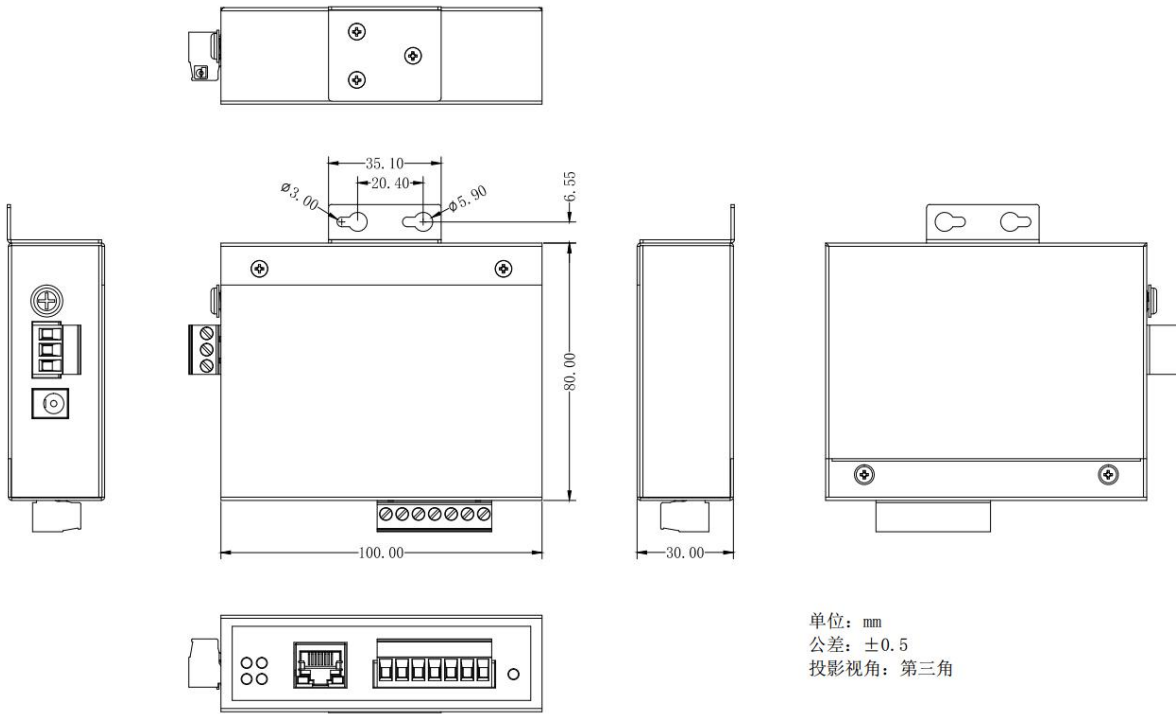
7Pin 5.08 terminal block	RS-485	RS422	RS232
1	A(DATA+)	A ( TxD+ )	-
2	B(DATA-)	B ( TxD- )	-
3	-	A ( RxD+ )	-
4	-	B ( RxD- )	-
5	-	-	TX
6	-	-	RX
7	-	-	GND

## 7. Appearance



## 8. Structure dimensions

- Physical dimensions: Length 100±0.5mm, Width 80±0.5mm, Height 30mm±0.5mm



## 10. Accessories

Name	QTY(unit)
UT-6801S-GW Device	1PCS
CD	1PCS
Certificate	1PCS
Warranty	1PCS
Rail seat	1PCS

## 11. Ordering

Model	Supply voltage	Serial interface	Communication mode
UT-6801S-GW	12-36V(isolated)	3.81 terminal	RS485 RS422
UT-6801S-GW-48	12-48V(non-isolated)	3.81 terminal	RS485 RS422